The Spiral In Nature

Part 3 - The Lucas Sequence and the Dimensions of Spacetime, “Fractal 44” and the Hypercube

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In this section I will be elaborating on an incredible discovery that I’ve made, which is a correlation between the Lucas sequence and the dimensions of spacetime in Prof. Mohammed El Naschie’s E-Infinity theory.

I will also show correlations between “Fractal 44” (as seen in “The Etheric Particle 216” written by @salahealer216), the flower of life as seen in sacred geometry and the 64 tetrahedron grid of the vacuum, the Hypercube as envisaged by El Naschie and also the genius work of Walter Russell; which predates all of these remarkable discoveries regarding the true nature of our cosmos.

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1. The Lucas Sequence

The Lucas numbers or Lucas series are an integer sequence named after the mathematician François Édouard Anatole Lucas (1842–91), who studied both that sequence and the closely related Fibonacci numbers.

Similar to the Fibonacci numbers, each Lucas number is defined to be the sum of its two immediate previous terms, thereby forming a Fibonacci integer sequence.

The first two Lucas numbers are L0 = 2 and L1 = 1 as opposed to the first two Fibonacci numbers F0 = 0 and F1 = 1.

Also like all Fibonacci-like integer sequences, the ratio between two consecutive Lucas numbers converges to the golden ratio.

Though closely related in definition, Lucas and Fibonacci numbers exhibit distinct properties.

We can express the relationship of L(n) and F(n) as..
$L(n) = F(n-1) + F(n+1) = F(n) + 2F(n-1) = F(n+2) - F(n-2)$

The sequence of Lucas numbers is:
2, 1, 3, 4, 7, 11, 18, 29, 47, 76, 123..

2. Fibonacci Arrays

The first 100 terms of the Wythoff array are listed in Table 1.

TABLE 1

1	2	3	5	8	13	21	34	55	89
4	7	11	18	29	47	76	123	199	322
6	10	16	26	42	68	110	178	288	466
9	15	24	39	63	102	165	267	432	699
12	20	32	52	84	136	220	356	576	932
14	23	37	60	97	157	254	411	665	1076
17	28	45	73	118	191	309	500	809	1309
19	31	50	81	131	212	343	555	898	1453
22	36	58	94	152	246	398	644	1042	1686
25	41	66	107	173	280	453	733	1186	1919

The first 100 terms of Stolarsky's array are listed in Table 2.

TABLE 2

1	2	3	5	8	13	21	34	56	89
4	6	10	16	26	42	68	110	178	288
7	11	18	29	47	76	123	199	322	521
9	15	24	39	63	102	165	267	432	699
12	19	31	50	81	131	212	343	555	898
14	23	37	60	97	157	254	411	665	1076
17	28	45	73	118	191	309	500	809	1309
20	32	52	84	136	220	356	576	932	1508
22	36	58	94	152	246	398	644	1042	1686
25	40	65	105	170	275	445	720	1165	1885

All Fibonacci-like integer sequences appear in shifted form as a row of the Wythoff Array and also Stolarsky's array (Figure 1); the Fibonacci sequence itself is the first row and the Lucas sequence is the second row (third row in Stolarsky's array), it is fascinating to note that the integer values of the dimensions of spacetime in E-Infinity theory, revealed by El Naschie's equation Dn = Φ^(n-1), is the third row of the Wythoff array (and also is the second row of Stolarsky's array).

Figure 1 - The Wythoff array is an infinite array of integers that can be constructed by beginning with the Fibonacci numbers {F2, F3, F4, F5, …} in the first row and then building up subsequent rows by repetitively adding {F3+k, F4+k, F5+k, F6+k, …}, where k = 0 or 1, is the smallest offset producing an initial term that has not occurred in a previous row. This process gives the array shown on the top of Figure 1.

A stolarsky array is an array of natural numbers such that:

-The rows {m1, m2, …} are positive Fibonacci sequences

-Every natural number occurs exactly once in the array

-Every positive Fibonacci sequence is a row of the array after a shift of incides. That is given a positive Fibonacci sequence {Sk}, there exist m and k such that m(n) = Sn+k

The first such array was constructed by Stolarsky and is shown below the Wythoff array in Figure 1.

By inspecting the tables of these two arrays, it is easy to obtain more Stolarsky arrays. (For example, in either table, the 4 may be shifted from the second to the third row.) It would be interesting to have a classification of the Stolarsky arrays.

The Wythoff array is a Stolarsky array and also contains every natural number exactly once.

3. The Lucas Sequence = The Dimensions of Spacetime in String Theory

Alternatively, we can express the relationship of L(n) and the golden ratio (Φ) as..
L(n) = Φ^n + (1-Φ)^n = Φ^n + (-Φ)^(-n)
For n > 1, the magnitude of the term (-Φ)^(-n) is less than 1/2, L(n) is the closest integer to Φ^n or, equivalently, the integer part of Φ^n + 1/2.

Combining the above with F(n),
F(n) = (Φ^n - (1-Φ)^n)/(√5)
a formula for Φ^n is obtained:
Φ^n = (L(n) + F(n)(√5))/2

Since 1-Φ = 1/Φ, this means that for n ≥ 1, L(n) is the same integer that is expressed in the continued fraction expansion representations of Φ^n.
For example:

L(1) = 1
Φ^1 = 1+1/Φ^1 = 1+1/(1+1/(1+1/(1+...)))
Φ^1 (which is simply Φ) is also equal to 1/Φ+1 = Φ^1 = Φ
The correlation of Φ with 1 and the inverse of Φ (1/Φ) reveals a Fibonacci sequence that connects all of the powers of Φ and their inverses and 1. This hidden Fibonacci sequence that exists between positive and negative Φ exponents and the unit interval (1) is the foundation of El Naschie's E-Infinity theory.

L(2) = 3
Φ^2 = 3-1/Φ^2 = 3-1/(3-1/(3-1/(3-...)))
Φ^2 is also equal to 1+Φ = Φ^2

L(3) = 4
Φ^3 = 4+1/Φ^3 = 4+1/(4+1/(4+1/(4+...)))
Φ^3 is also equal to Φ + Φ^2 = Φ * Φ^2 = Φ^3
In other words our E-Infinity space is blind to the union (+) and intersection (*) of the probabilities of quantum particle and quantum wave in fractal-cantorian spacetime, and cannot tell them apart which is the deepest explanation possible for the particle-wave duality of quantum mechanics.
According to El Naschie, this is the exact value for the dimension of our "ordinary spacetime" in E-Infinity theory. 4 ordinary dimensions + 1/Φ^3 Fractal dimension. Following this road we come to realize that the Casimir latent energy is nothing but the universal fluctuation 1/Φ^3 which gives birth to the core of Cantorian-fractal spacetime by inversion 1/1/Φ^3 = Φ^3 = 4 + 1/Φ^3 ≅ 4.23606797. In turn this is nothing but the difference between the Hausdorff dimension of the particle zero set 1/Φ and the wave empty set 1/Φ^2. (1/Φ - 1/Φ^2 = 1/Φ^3)

L(4) = 7
Φ^4 = 7-1/Φ^4 = 7-1/(7-1/(7-1/(7-...)))
This value is closely related to the 7 sided Klein modular group in the previously shown hyperbolic-fractal projection of the quantum gravity of spacetime in El Naschie's E-Infinity theory. This value is also exactly 20 times the Fine Structure Constant (1/20Φ^4) according to El Naschie. The inverse of the Fine Structure Constant can be divided by 2 and then subsequently by 2Φ, 2Φ^2, 2Φ^3, etc. in order to generate a hierarchical scaling sequence that produces all of the dimensions of spacetime, as previously shown.

L(5) = 11
Φ^5 = 11+1/Φ^5 = 11+1/(11+1/(11+1/(11+...)))
This value is the Topological Planck Length and also the isomorphic length of a super symmetric compactified hyperbolic Penrose universe with a Hawking black hole circular horizon given by;
(lp) = (4 + 1/φ^3)(5 + 1/φ^3) / 2 = (22 + k) / 2
= 11 + (k / 2) = 11 + 1/φ^5 = φ^5
= 11+1/(11+1/(11+1/(11+...)))
The topological Planck energy of our unit-interval universe is nothing but Hardy's quantum entanglement:
(Ep) = (PH) = 1/φ^5 = k/2
Since 11 + 1/φ^5 is equal to φ^5, which is the inverse of the unit-interval (Ep), we see that E infinity space is infinitely multi-connected and that all these fractal gaps and voids in their space are essentially wormholes with length equal to (lp) = 11 + 1/φ^5 which constitutes Einstein-Rosen bridges.

Note that the continued fraction representations of the powers of phi (Φ^n) alternate with addition and subtraction to the corresponding Lucas sequence value in order to produce the final result.
This addition/subtraction alternation, as well as the clear correlation between any positive Lucas sequence integer L(n) and the continued fraction expansion representations of Φ^n would remain a pattern into infinitely large numbers.

Another alternating pattern that can be seen in both the Lucas sequence and the Fibonacci sequence is the alternation of 2 odd numbers followed by 1 even number..2 and 1 also being the root integers of the Lucas sequence.
Fibonacci - 1,1 - 2 - 3,5 - 8, etc (2 odd, 1 even, 2 odd, 1 even, etc.)
Lucas - 2 - 1,3 - 4 - 7,11, etc (1 even, 2 odd, 1 even, 2 odd, etc.)
If the Fibonacci sequence is divided into subsections of 12, there are 4 pairs of 2 odd,1 even 'triangles' [2,1 = :,. which would be the top 2 rows of the tetractys] in each row. The total angle of the 4 [2,1] triangles in each row is 720 degrees, the same degree of the tetrahedron. Using this method we can combine 2 rows of 12 (a pattern also seen in the 24 reduced Fibonacci numbers) to derive the degree of the octahedron which is 1440.

4. Lucas Sequence 12 digit repeat cycle

I will correlate this realization to my next main point that I wish to share with you, along with the 24 reduced Fibonacci numbers, there are many other secret Fibonacci patterns that have not been discussed. I am reserving an entire unreleased section of my book to discuss these patterns in great depth. Lucien Khan has revealed several remarkable patterns that will also be analyzed in the future. I will note his discovery of the 60 digit repeat cycle of the last digit in the values of the Fibonacci sequence, because it correlates to the main point of this section which is the fact that the Lucas sequence also contains a 12 digit repeat cycle for the last digits.

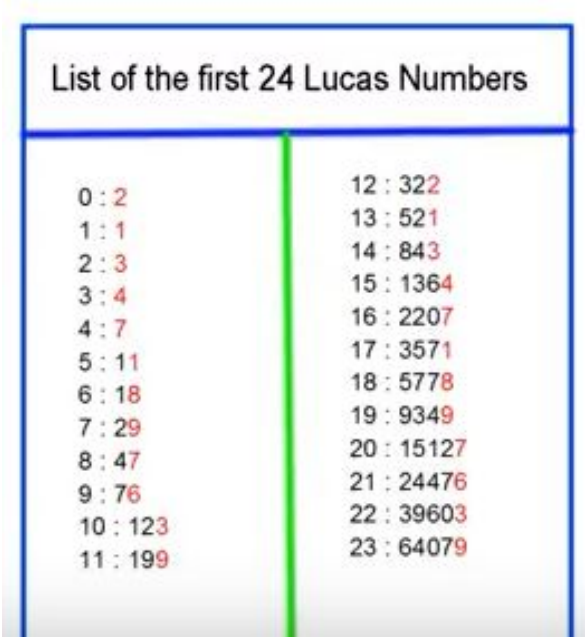


Figure 2 - The Lucas sequence 12 digit repeat cycle for the last digits of each number.

As you can see here the Lucas sequence contains a hidden 12 digit pattern.

2,1,3,4,7,1,8,9,7,6,3,9

Applying the same technique as the 24 reduced numbers reveals that this pattern adds to 10 vertically.

2,1,3,4,7,1
8,9,7,6,3,9
1,1,1,1,1,1 - Sum of row 1 and 2 with digital root

Could this be another correlation between the Lucas sequence and the number 10?

The number 10, the decagon with circumradius of the golden ratio in the unit interval.
Along with 10 being the connection between all of the dimensions of spacetime in E Infinity theory, the digital root reduction of this pattern reveals the integer value for the 11th dimension of the Superstring core of E Infinity aka Φ^5 = 11+1/Φ^5 = 11+1/(11+1/(11+1/(11+...)))

This value is the Topological Planck Length and also the isomorphic length of a super symmetric compactified hyperbolic Penrose universe with a Hawking black hole circular horizon given by;
(lp) = (4 + 1/φ^3)(5 + 1/φ^3) / 2 = (22 + k) / 2
= 11 + (k / 2) = 11 + 1/φ^5 = φ^5
= 11+1/(11+1/(11+1/(11+...)))

5. Revisit Fractal Dimensions of Spacetime in String Theory - 12 digit repeat cycle

We will now revisit the 12 digit repeat cycle that is hidden within the fractal dimensions of spacetime in the Superstring core of E Infinity theory that was briefly mentioned in the previous section, as they are obviously related patterns.

Dim	0,56	0,9	1,46	2,36	3,82	6,18	10	16,18	26,18	42,36	68,54	110,9
Dim (int)	1	1	2	2	4	6	10	16	26	42	68	111 (110)
Calcul	$10\phi^6$	$10\phi^5$	$10\phi^4$	$10\phi^3$	$10\phi^2$	10ϕ	10	10φ	$10\varphi^2$	$10\varphi^3$	$10\varphi^4$	$10\varphi^5$

With :
$\varphi = 1{,}618$
$\phi = 1/\varphi = 0{,}618$

Figure 3 - The dimensions of space-time is a repeating sequence of integers very similar to the Fibonacci sequence:
1 1 2 2 4 6 10 16 26 42 68 111
This sequence of integers is actually double or an 'octave' of Fibonacci numbers:
1 1 2 3 5 8 13 21 34 55
which is the approximation of the golden spiral.
The only difference is the last integer, which is not 110, but 111.
It has previously been shown that it is possible to generate the exact values of all of these dimensions by an incredible hierarchical sequence of cantor sets that are scaled in proportion to the inverse of the fine structure constant [α^-1=137.082039=20φ^4] the full sequence is shown below;
α^-1/(2) = 68+3k = 10φ^4
α^-1/(2φ) = 42+2k = 10φ^3
α^-1/(2φ^2) = 26+k = 10φ^2
α^-1/(2φ^3) = 16+k = 10φ
α^-1/(2φ^4) = 10
α^-1/(2φ^5) = 6+k = 10/φ
α^-1/(2φ^6) = 4-k = 10/φ^2
α^-1/(2φ^7) = 2+2k = 10/φ^3
α^-1/(2φ^8) = 2-3k = 10/φ^4
α^-1/(2φ^9) = 5k = 10/φ^5
α^-1/(2φ^10) = D(0) = 10/φ^6
Where k = 2/φ^5 = (1/φ^3)(1-(1/φ^3))

The dimensions of spacetime, as well as their fractal-correction ratios, are clearly organized into a dual hierarchy with mirrored ascending symmetry around the number 10; the same sequence that is found in the Tetractys (1234) is embedded into E-infinity theory, revealed through the hierarchical sequence of cantor sets that are scaled in proportion to the inverse of the fine structure constant and the powers of the golden ratio.

This embedded sequence (-4,-3,-2,-1,0,+1,+2,+3,+4) is remarkably similar, but in a mirrored fashion, to the sequence that was previously revealed to be encoded into the 24 reduced Fibonacci numbers with the 'octave' system applied to base ten, however visually you can see how this time, the star tetrahedron or dual-tetractys pattern that is embedded into the hierarchical sequence of cantor sets in E-Infinity 'deconstructs' a negative tetractys down to zero from four and then reverses at its center (zero) where it 'builds' a positive tetractys from zero back to four.

There is a definitive fractal existing within the dimensions of spacetime. Once the 11th dimension is reached (integer value 111), multiplying by the golden ratio, it obtains approximately 180.

There is a factor equal to φ^11 between the first value (D(1)) 0.9, which is the half octave of 1.8, and the 12th value (111*1.618)

Between the 24th value and the 12th value, a factor equal to φ^11 Between the 24th value and the 1st value, a factor equal to φ^22 and so on. This ratio is deeply correlated to El Naschie's correction to Einstein's famous equation E = mc^2, where he combines M-Theory and quantum entanglement to account for the missing dark matter and dark energy of our cosmos. Once again, this subject is an entire book's worth of information in of itself and for the sake of space, it will be discussed in a future edition after all of the introductory information has been explained.

The main point established in the corrected equation is that we can couple the missing dark energy with our observable energy by subtracting the 4 ordinary dimensions of spacetime from the 26 Bosonic string dimensions, we are left with 22 compactified 'dark dimensions' of spacetime. His famous formula $E=(1/22+k)mc^2$ where $k = 1/\varphi^3(1-1/\varphi^3)$ simplifies to $E=1/2(1/\varphi^5)mc^2$.

This topic will be heavily discussed at another time, but back to the main point of the 12 digit repeat cycle within the fractal dimensions of the Superstring core of E Infinity.

Dim	0,56	0,9	1,46	2,36	3,82	6,18	10	16,18	26,18	42,36	68,54	110,9
Dim (int)	1	1	2	2	4	6	10	16	26	42	68	111 (110)
Calcul	$10\phi^6$	$10\phi^5$	$10\phi^4$	$10\phi^3$	$10\phi^2$	10ϕ	10	10φ	$10\varphi^2$	$10\varphi^3$	$10\varphi^4$	$10\varphi^5$

With :
φ = 1,618
ϕ = 1/φ = 0,618

Figure 3 (repeated) - There is a definitive fractal existing within the dimensions of spacetime. Once the 11th dimension is reached (integer value 111), multiplying by the golden ratio, it obtains approximately 180.

There is a factor equal to φ^11 between the first value (D(1)) 0.9, which is the half octave of 1.8, and the 12th value (111*1.618)

If we consider a scaling factor of exactly 200 (φ^11 being approx 199) between these repeating sets of dimensions, the values reduced to 9 appear: 180, 36000, 7200000, 1440000000, 2880000000000, etc.

All of these numbers are naturally related to the golden ratio as we have seen, scaling these numbers to a truncated 4 digit base reveals the natural wave angles from before, but this time they appear in a ‘doubling-sequence’ of 180 degree intervals of rotation; 18, 36, 72, 144, 288 etc.

Buried within the fractal dimensions of the Superstring core of E Infinity we have a 12 digit repeating pattern that reveals a doubling sequence of golden ratio trigonometric rotation angles? Could this be the missing link between vortex math, wave number theory and string theory? The same 12 digit pattern that is revealed hidden in the Lucas sequence whose integer values are also the same as the dimensions of the Superstring core? The amount of correlation within this topic is seemingly endless, it is unbelievable and it will be the topic of an entire upcoming publication.

6. E - Infinity Review - “Resolution of the Black Hole Information Paradox”

Before closing this topic and moving onto the next section, it would be best to include a brief review of El Naschie’s E-Infinity theory, which has been previously covered numerous times on my instagram page @anthonycanosa.
This section is a combination of two previous publications of El Naschie that I had used on my instagram page for educational purposes. The links to these publications are listed below.

The Counterintuitive Increase of Information Due to Extra Spacetime Dimensions of a Black Hole and Dvoretzky’s Theorem
https://file.scirp.org/pdf/NS_2015102815365193.pdf
A Resolution of the Black Hole Information Paradox via Transfinite Set Theory
http://file.scirp.org/pdf/WJCMP_2015101214172432.pdf

Figure 4 - Artistic depiction of ‘spaghettification’.
A black hole is essentially a relativistic as well as a quantum object.
Therefore the information paradox of black holes is a consequence of the clash between these two most fundamental theories of modern physics.
It is logical to conclude that a resolution of the problem requires some form of a quantum gravity theory.
The present work proposes such a resolution using set theory, point-less spacetime geometry, and Dvoretzky’s Theorem.

Physically empty space with no matter, virtual particles or radiation what so ever is still far from being nothing. Empty spacetime in the above sense is a sophisticated layered hierarchy of empty sets. A point in such space is by no means the classical point defined somewhat naively as the intersection of two lines.
In fact a proper spacetime, which satisfies the physical quantum reality, is a points-less spacetime with geometry and topology akin to that of von Neumann's continuous geometry, A. Conne's noncommutative geometry, as well as the point-less space of E-infinity Cantorian spacetime.
In such Cantorian-fractal geometry, what appears to be a point is in actuality an entire Cantor set when magnified by sharpening the resolution of observation.
Combining the preceding fundamental insights gained from applying transfinite set theory and fractals to spacetime geometry with a fundamental theorem due to Aryeh Dvoretzky about measure concentration, we can argue that only 4.5 percent of the information inside a black hole could be regarded as inaccessible while the rest of the 95.5 percent of the information remains on the surface of the black hole no matter how much it shrinks because in the end analysis, spacetime has no ordinary points and no matter how small such points are, they are not zero nor can they vanish into nothingness because empty spacetime is anything but nothing.
In fact empty spacetime is a multi-fractal made of infinitely many empty sets with varying degrees of emptiness.

The Transfinite Theory of Spacetime

To make a long, in fact very long story short, we start our journey to the exact picture of our physico-mathematical spacetime from the previously shown bijection formula
$D(n) = \Phi^{(n-1)}$
corresponding to von Neumann-Conne's dimensional function of Penrose foliated universe, i.e. Penrose tiling.

This is necessarily a fractal universe resembling a compactified holographic boundary, i.e. compactified Klein modular curve for a transfinite E8E8 Lie exceptional symmetry groups constituting our bulk.

Here D(n) is the Hausdorff dimension corresponding to n Menger-Urysohn dimension and $1/\Phi$ is the Hausdorff dimension of the zero set, i.e. n = 0.

To see that we set n = 0 in D(n) and find
$D(0) = \Phi^{(0-1)} = \Phi^{(-1)} = 1/\Phi$

The corresponding von Neumann-Conne formula is
$D = a + b(1/\Phi)$

Setting a = 0 and b = 1 one finds the same value, namely
$D = 0 + (1)(1/\Phi) = 1/\Phi = D(0)$
This is our zero set which models the pre-quantum particle
$D(QP) = (0,1/\Phi)$
for the pre-quantum wave, i.e. the surface or cobordism of the quantum particle we just need to insert n = −1 which is the dimension of the neighborhood of a point. That way we find
$D(-1) = \Phi^{(-1-1)} = \Phi^{(-2)} = 1/\Phi^2$
or equivalently by setting a = 1 and b = −1 one finds
$D(QW) = 1 - 1/\Phi = 1/\Phi^2 = D(-1)$
This is the empty set which models the quantum particle.

We see that the zero set D(0) separates the sets D(n) from the empty sets D(-n) and we are thus justified to speak of the degree of emptiness of an empty set as we move from n = 1 to n = −2 until we reach the truly insubstantial nothingness for $n = -\infty$ which leads to $D(-\infty) = \Phi^{(-\infty)} = 1/\Phi^{(\infty)}$ = zero.

The Menger-Urysohn Dimensionality and the Dimensions of the Empty Set d(Menger) = −1

The discussion of the section on the transfinite theory of spacetime depended crucially upon the extension of the notion of topological dimensions into the negative regime.

In this section we show how simple, intuitive and easily grasped this extension of the deductive topological dimension theory which goes back to the Russian Paul Urysohn and the Austrian Karl Menger.

Take a 3D cube. The dimension of the cube is 3 but the dimension of the six sides of the surface of the cube is D = 3 – 1 = 2 which is a trivial result.
Applying the same argument to the two-dimensional surface, the borders are lines and therefore we have D = 2 – 1 = 1 which is equally trivial.
Continuing this for the line we find that the dimensions of the edges of the line must follow the same formula, namely D = n - 1. For a line n = 1 we find edge points D = 1 – 1 = 0, again a trivial result.

Here triviality stops because continuing for the point n = 0 one finds a non-trivial result, namely D = 0 – 1 = -1.
Earlier on we called this the empty neighborhood of a point or an empty set cantor-point.
Continuing for $D = -\infty$ one finds then the truly completely empty set with the Hausdorff dimension $D(-\infty) = 1/\Phi^{(\infty)}$ = zero and the bidimension representation $D(-\infty) = (-\infty,0)$.

An Exact Picture of Quantum Spacetime

We clearly live in a 3 + 1 = 4 dimensional world. These are three spatial dimensions plus a temporal dimension preventing things from happening all at once in some folkloristic philosophy.

Einstein's special and general relativity takes the time dimension far more seriously as a dimension which one can put on equal footing as the space dimension if not even more.

Inserting n = 4 in our bijection formula one finds
$D(4) = \Phi^{(4-1)} = \Phi^{(3)} = 4 + 1/\Phi^3$
Consequently we have
$D(4) = (4,4 + 1/\Phi^3)$

This means the fractal Hausdorff dimension is larger than the corresponding Menger-Urysohn topological dimension by the amount $1/\Phi^3$ which we will see later on that it is equal to the intrinsic so called latent topological Casimir pressure of empty spacetime.

Now having found $4 + 1/\Phi^3$ is an important result but we would like to scrutinize this result and analyze it in a far deeper way.

Let us look back at our spacetime as being made of an infinite mixture of all possible Cantor sets.

That means starting from the unit set, i.e. classical line $D(1) = 1$ and the zero set $D(-1) = 1/\Phi$ until we reach the totally empty set.
The sum of all these sets is clearly $D(1) + D(0) + D(-1) + D(-2) + \ldots + D(-\infty) = 1 + 1/\Phi + 1/\Phi^2 + 1/\Phi^3 + \ldots$
$= 1 / (1 - 1/\Phi) = 1 / (1/\Phi^2) = \Phi^2 = 2 + 1/\Phi$

Now since $D(0) = 1/\Phi$ represents for us a random Mauldin-Williams triadic Cantor set living in one dimension, then gaging the sum $2 + 1/\Phi$ in terms of this Cantor set, we can say that the dimension of our mixture of Cantor sets is simply

$D = (2 + 1/\Phi) / (1/\Phi) = (2 + 1/\Phi) * (\Phi) = (2 + 1/\Phi) * (1 + 1/\Phi) = (\Phi^2) * (\Phi) = \Phi^3 = 4 + 1/\Phi^3$
which is the Hausdorff dimension of our spacetime.

However there is a still more profound interpretation of these results because $1 + 1/\Phi = \Phi$ is the inversion of the Hausdorff dimension $1/\Phi$ of the quantum particle while Φ^2 is the inversion of the Hausdorff dimension of the quantum wave $1/\Phi^2$.

In other words $4 + 1/\Phi^3$ is both the intersection between the particle like behavior given by $\Phi = 1 + 1/\Phi$ and the wave like behavior dimension $\Phi^2 = 2 + 1/\Phi$
$(1 + 1/\Phi) * (2 + 1/\Phi) = 4 + 1/\Phi^3$
as well as the union of the two, namely
$(1 + 1/\Phi) + (2 + 1/\Phi) = 4 + 1/\Phi^3$
where $(1 + 1/\Phi)$ and $(2 + 1/\Phi)$ are the un-normed probability of particle and wave respectively.

In other words our space is blind to the union and intersection and cannot tell them apart which is the deepest explanation possible for the particle-wave duality of quantum mechanics.

Armed with all the preceding results let us see if we can construct a simple exact picture of micro spacetime. We start with the zero set pre-particle. This is
$D(0) = (0,1/\Phi)$

Surrounding D(0) is its cobordism or the guiding quantum wave which means the empty set
$D(-1) = (-1,1/\Phi^2)$

The cobordism, or surface of the guiding Bohm-Einstein quantum wave, is clearly D(-2) which is given by
$D(-2) = (-2,1/\Phi^3)$

Now something quite remarkable happens at this point. The particle wave entity is floating in spacetime with an average dimension $4 + 1/\Phi^3$ which means a normed average dimension $1 / (4 + 1/\Phi^3) = 1/\Phi^3$.

That means spacetime is the cobordism, i.e. the surface of the guiding Bohm-Einstein, ergo ghost quantum wave.

In other words our quantum spacetime is nothing but a zero set pre-quantum particle surrounded by an empty set pre-quantum wave floating in the surface of the quantum wave given by the expectation value $(-2,1/\Phi^3)$.

The ghost is no ghost at all unless we consider spacetime to be a ghost. In the next section we will see how all of that relates to Casimir energy and dark energy.

The Casimir Local Topological Pressure

If two plates which are conducting but uncharged are put very close to each other, it is an experimental fact that they are pulled together by what is known as the Casimir effect.

The E-infinity set theoretical explanation advanced some time ago is as follows:
The nano distance between the two plates is as near as we can come to create an empty set. That means inside the plates we have a topological pressure $1/\Phi^2$ measured by the Hausdorff dimension $1/\Phi^2$ of the empty set.

Outside, adjacent to the plates, we have the zero set of the quantum particles.

Consequently the net topological pressure is the difference between the empty set quantum wave $1/\Phi^2$ and the zero set quantum particle which means $1/\Phi - 1/\Phi^2 = 1/\Phi^3$ giving us the intrinsic latent topological pressure of empty spacetime which by inversion, leads to the Hausdorff dimension $4 + 1/\Phi^3$.

In other words the Casimir topological pressure is the same at the counter factual part in the general formula for Hardy's quantum entanglement, namely $P = 1/\Phi^{(n+3)}$ and setting the number of particles $n = 0$ we are left with the global part $P = 1/\Phi^3$.

Thus we could think of $1/\Phi^3$ as the excess in the fluctuation of spacetime dimension $4 + 1/\Phi^3$ over the average topological dimension 4 causing the extra pressure of $1/\Phi^3$ which manifests itself locally as the Casimir effect.

Dark Energy Is Global Dvoretzky Concentration of Casimir Energy

The two Casimir plates of the classical Casimir effect experiment, plays obviously the role of a boundary condition. What happens then when this boundary is pushed to infinity?

The answer is it becomes the boundary of the holographic boundary of the universe.
This boundary is obviously a one sided boundary with nothing outside to push back to create a statical balance.
It is a Möbius-like multi-dimensional boundary and consequently the multiverse-universe must expand into the insubstantial nothingness surrounding our multiverse-universe which is a clopen (which means open and closed topologically) and an infinite replication of its own self.
Considering that this E-infinity universe has formally infinite dimensions, we see that the Dvoretzky theorem will apply and thus 95.5% of the energy of this universe will be concentrated at the edge of the universe.
Consequently, the difference between the Casimir energy and dark energy is the difference between local and global as well as two sided and one sided boundary conditions.

Dvoretzky's Theorem

The moral which we can learn, in fact relearn from this theorem is a well known wisdom from many counterintuitive results of geometry in higher dimensions, namely that we should in general never generalize an obvious conclusion from a low dimensional space to a higher one.

For instance, on a flat two dimensional space any two lines will intersect in a point unless they are parallel.

However, the spectacular failure of this simple obvious result in three dimensional space is embarrassingly clear.

Using this previously shown formula to calculate the distribution of volume within an (n) dimensional sphere, we conclude the following remarkable result, namely that almost all the "volume" stays within a flab of fixed width and our result announced in the introduction of the present paper follows that 95.5% is concentrated near the subspace (n −1) which may be regarded as the hyper surface of an n dimensional black hole.

This is a clear failure of our low dimensional intuition to anticipate what happens in high dimensional cases.

The mathematical literature abounds with examples demonstrating the failure of our low dimensional intuition to extrapolate from low dimensional results to higher dimensional ones.

The holographic boundary and the horizon of a higher dimensional black hole is no exception.

Rather than diluting the density of information, a higher dimensional black hole surface has a higher information density than lower dimensions.

Conclusion

Let us examine the implicit assumptions in our previous exposition leading to the realization that dark energy is the energy of the quantum wave concentrated at the surface of the quantum particle.

This was obtained using a model which de facto assumes that spacetime is a point-less and self-referential fractal Cantorian ultimate L-like topological manifold where each point upon magnification reveals itself as an entire Cantor set, ergo an entire universe.

Thus our complete universe is a gigantic black hole in which we are peacefully living.

Each point in this universe could be regarded as a quasi-black hole seen from our end and there are of course “medium” sized black holes seen again from our viewpoint as observer but self-similarity or more accurately self-affinity implies that these are again complete universes inside our universe seen again from our position as observer living in the gigantic black hole and so on ad infinitum.

In short, the complexity of the situation uses the in-built self referentiality of Cantorian fractals. That way infinity and zero are used and eliminated at the same time without getting entangled in computational or logical inconsistency.

First of all totally empty space is not nothing but something substantial even without any fluctuation or pair creation and annihilation.

Empty spacetime is a multidimensional empty set. The empty set is far from being nothing. As soon as you mention the word set then the word nothing is not there.

Insubstantial nothingness is not even a set. The borderline is the totally empty set given by 1/Φ to the power of infinity (∞).
The empty set on the other hand is given by two dimensions, namely minus one and 1/Φ^2 both of which are not zero or nothing.

Consequently, by shrinking a spherical black hole indefinitely it can never become a single point with a zero surface area because quantum space has no ordinary classical point exactly as the point-less spaces of von Neumann’s noncommutative geometry and E-infinity Cantorian spacetime.
The information density becomes extremely large but not infinity as the black hole becomes extremely small but never zero so that at the end about 95.5% of the information encoded on the surface of the black hole is never lost and only 4.5% of the information inside the black hole becomes inaccessible to us.

Paradoxically for us living inside this giant black hole we call the universe, the situation is reversed.

Only 4.5% of the energy of the universe is accessible to us while 95.5% of the energy of the universe cannot be measured directly and we know that it is there only because of observing its effect manifested via the accelerated cosmic expansion.

Actual empty spacetime is far from being nothing and is a multi-dimensional empty set, which is a substantial something.

This spacetime is point-less and what appears to be a point is, upon magnification, a complete random Cantor set.

In such spacetime a black hole will always have a non-zero surface area no matter how small it shrinks and will never vanish and have a zero surface area.

In such a situation, and by a well known brilliant theorem due to the great late A. Dvoretzky who was at a time the President of the Wiseman Institute, at least 95.5% of the information of a black hole will not be lost.

The situation is analogous to that of the ordinary and the dark energy of the universe and could be used as a guiding principle in the design of a nano Casimir-dark energy reactor.

In the end analysis we think that our inability to give a waterproof definition to the words point, line and so on coupled with mildly ignoring the impact of nonlinear dynamics, chaos and fractals on fundamental quantum physics contributes to a delay of the development of black hole research and related subjects.

7. Fractal 44 Intro

As stated before, I will also show correlations between “Fractal 44” (as seen in “The Etheric Particle 216” written by @salahealer9), the flower of life as seen in sacred geometry and the 64 tetrahedron grid of the vacuum, the Hypercube as envisaged by El Naschie and also the genius work of Walter Russell; which predates all of these remarkable discoveries regarding the true nature of our cosmos.

Excerpt from “The Etheric Particle 216” written by @salahealer9:
Pyramid Energy could be described as the accumulation of standing wave interference inside a pyramid emanating Golden Spirals or vortexes. The Fibonacci spiral is an approximation of the Golden Spiral observed in nature.

To the monks of early Christianity, the geometry of the square symbolized the creation of the structured universe and how the number two, the infinite and finite, can be generated from the one. In ancient Israel King Solomon described the passage from one to two as a reference to ‘Divine Inscrutability’.

Our physical reality is based on the pillar number four, with the four elements of air, earth, fire and water, the four directions and four corners of Earth. The Tetractys, meaning ‘the number four’ is the tetrahedron in three dimensions with four triangular faces. It is the first polygonal solid and the fundamental structure of space-time.

Geometry is the key to understanding the multi-layered universe and a doorway to the study of the divine order of nature. A single point represents ‘Unity’ or ‘the One’ and can also represent the circle or the square.

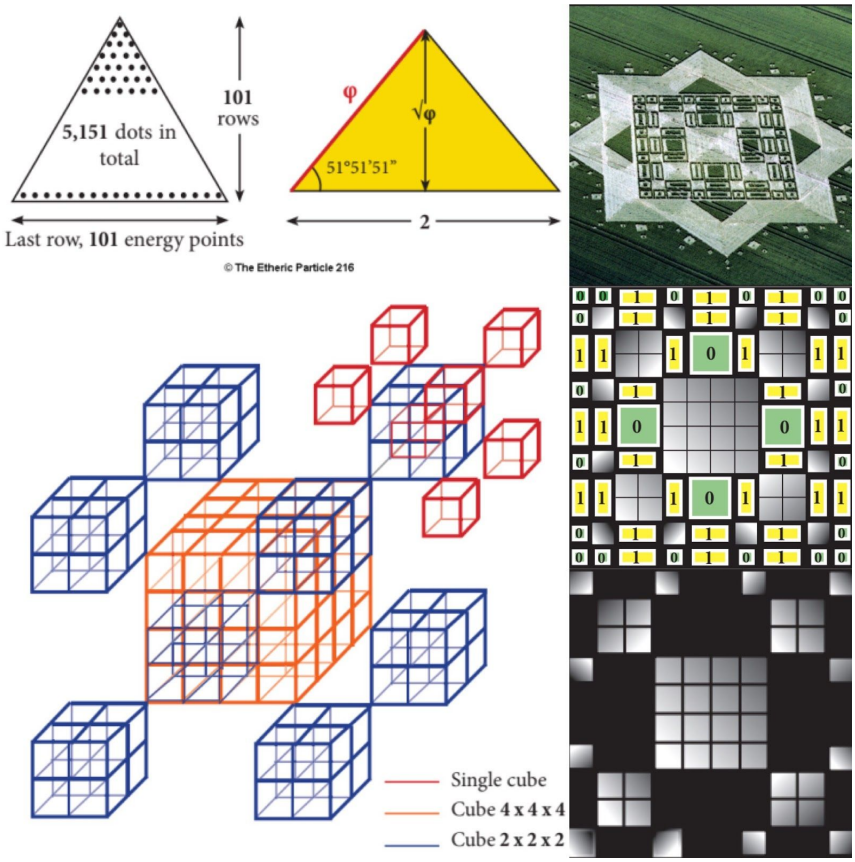


Figure 5 - Pyramid Energy can be understood through an expanded fractal of squares revealed in a crop circle at East Field Alton Priors, Wiltshire, United Kingdom on 3rd July 2005.
The Alton Priors crop circle is based on a four by four grid of square units clearly visible at its center.
The Primary Grid 4 x 4 is seen at the center of the Alton Priors crop circle.
Four 2 x 2 Grids are placed on each corner of the 4 x 4 Grid. Finally twelve single squares are placed on each corner of the 2 x 2 Grid, bringing a total of 44 squares.

Fractal 44 can be viewed as a 12 x 12 Grid representing the base of a pyramid with four Zero Energy Points through which operate the four creative forces. The universe is ordered through the ether governing the four fundamental forces. Universal motion or spin originates from the ether working through the four forces on any scale from galaxies to atoms.

Binary codes bring important information about the numerical structure of the pyramid. Different sized squares and rectangles appear in the shaded areas. A binary code appears if we consider the yellow rectangle equal to 1 and the green square equal to 0. Binary codes can be read from either left to right or up and down.

0110 = 6
6 suggests the 6 x 6 x 6 Cube.
01110 = 14 = 7 x 2
7 appears as the height of the Great Pyramid in relation to its base.
110011 = 51 = 17 x 3
51 appears in the slope angle of the Great Pyramid and the seven pointed star
001010100 = 84 = 7 x 12
84 refers to one of the possible resonant frequencies of the Great Pyramid in Hertz.
1110111 = 119 = 7 x 17
119 brings again the number 7 in its divisors.

On each side of the 4 x 4 grid is a 101 doorway. The number 101 represents a ‘zero gateway’ with ones on either side, emanating Zero Point Energy from the zero. The triangular number 101 is linked to the Great Pyramid and the integer part of the edge length of Hypercube 216 ($72\sqrt{2} \approx 101.83$).

The Great Pyramid has a slope angle of 51º51′ and the triangular number 101 counts a total of 5,151 dots.

Fractal 44 is a template unifying the microcosm and macrocosm and a blueprint of the Divine Architecture.

Fractal 44 consists of 184 cubes in three dimensions with a 4 x 4 x 4 orange cube at its center composed of 64 cubes. Eight blue cubes of 2 x 2 x 2 sit at each corner bringing a total of 128 cubes (64 + 64 = 128).

Finally individual red cubes are placed on the corners of the 2 x 2 x 2 blue cubes adding a further 56 cubes (7 x 8) resulting in a total of 184 cubes (128 + 56 = 184). There are only seven red cubes placed around the blue bloc as the 8th red cube is integrated into the 4 x 4 x 4 orange bloc of 64 cubes.

Fractal 44 from a three dimensional view can also be seen in Figure 5.

8. Intro to Metaphysics & Walter Russell's Cosmology

After reading “The Etheric Particle 216” written by @salahealer9, I immediately noticed that there exists a direct correlation between “Fractal 44” and Walter Russel’s metaphysical cubic wavefield model which has been previously explained on my instagram page.

We are all familiar with the philosophical puzzle;
"If a tree falls in the forest but there is no one there to witness it, does it make a sound?"

As I understand Walter Russell's work, the answer is no. Sure, the falling tree will radiate all the frequencies (wave character) necessary to describe a falling tree, but those frequencies are not sound.

Those frequencies only become sound when they are decoded by the observers brain. The observer always interferes with the experiment. What is actually observed depends on the observer getting in the way of potential.

The observer thus determines what 'reality' is manifested. Those radiating frequencies emitted by the tree are regenerated into sound bodies (particle character) in the observers ear, and those auditory signals are decoded into sound by the brain.

If there were no living bodies to observe the universe then the frequencies emitted by any body would not be decoded, and the universe would have no illusionary form at all.

You may have come across the idea that thought-bodies have a potentiality, that is, they have no physical form, but can become physical. Those potentialities have the 'potential' to become a particle. In fact, nothing can become physical without it first being conceived as a (wave) thought-body.

From the moment of your birth, you exist simultaneously in two bodies. Half of the full expression of you is condensed into a physical body, but the other half of you is born as a metaphysical, spiritual body.

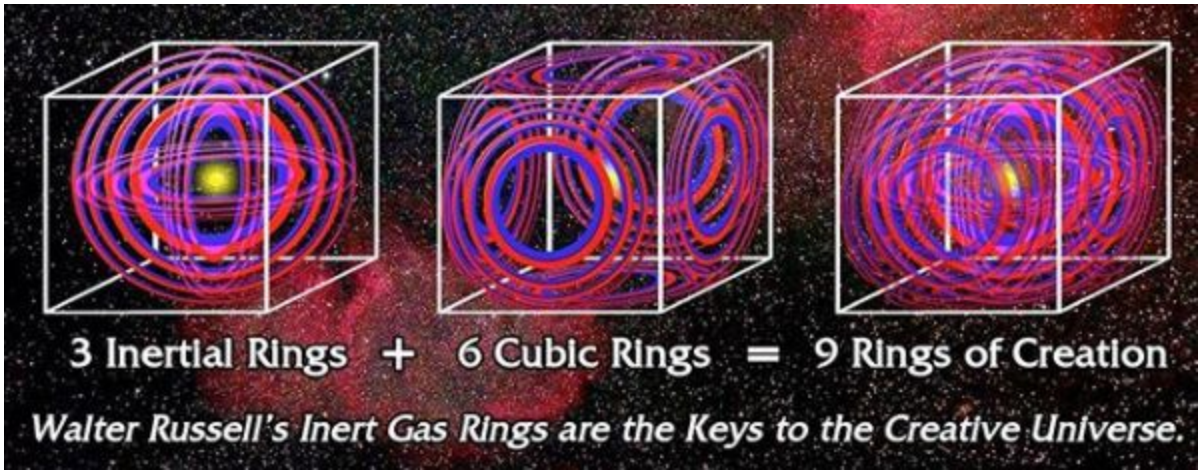


Figure 6 - In Walter Russell's cosmology, your physical body is represented as a '3D' sphere, while your spiritual body is represented by the '6D' wave field of the cube.

The physical body centers its own cubic metaphysical wave field. Your metaphysical body also grows and develops just as your physical body does during your life cycle.

Your physical self is in constant communication with your metaphysical self. You adjust your metaphysical self, your feelings, desires, and emotions based on the feedback you receive from your physical body and the experiences of that body in the physical realm.

As you grow and develop emotionally you could say, your 'old self' is constantly dying being immediately replaced by a new version/image of your 'self'.
Your bodily expression within the physical realm manifests as a direct result of the qualities your have constructed for yourself within the negative of the metaphysical realm. You manifest an exact copy in physical form from the pattern you created and constructed in your own metaphysical negative.
Thought-bodies are thus spiritual templates from which and through which your physical self is projected.
This process applies to all creation.
Every single expression in motion is also conscious and radiates its own 'mind' condition to every other state of motion within the simulation.

The (your) interface between the physical and the metaphysical realms is your body.
You cannot 'think' your ideas into physical form.
You do however; use your body to channel your own thought-body patterns into physical form through your words and actions.
When you have created in physical form an acceptable copy of your thoughts, you then stop thinking about further creation.

The physical body will eventually unwind and return to dust, but buildings for instance may last thousands of years because the concentrative effort which created those building was clear, sharp and in balance with the thought-bodies of the architects.

As your physical body grows from 0-40 years it fills and accumulates vitalizing life force, that potential now manifests as life, vitality and growth.

Now, after the 40 year maturity point, that same accumulated potential reverses its direction and explodes back towards the inertial plane of non-motion. The potential of 'action' has now become the potential for 'reaction'.
As you grow to 40 years you are therefore simultaneously accumulating your own death force within your physical body. After 40 years, this force is turned on itself and becomes the driving force to return your physical body to the inertial plane of non-motion.

There is no second force required. The internal resistance which once manifested, heat, density and form, drives the expression towards cold, nebulosity and death.

Man in general lives about 80 years. In that time, our sensing perceives a birth, growth from a baby to maximum maturity at 40 years, and then a gradual decline of the physical until all motion stops at 80 years. Our sensing apparatus has been designed to interact with this growth cycle.

In term of cosmic measure, 80 years is a blink of an eye. Imagine, those 80 years were compressed to a pico-second.

This is all matter is; a transient appearance/disappearance into and out of the physical realm of expression. We only perceive matter & form because of an extended 'polarized' transient existence.

"Energy cannot be created or destroyed, it can only be changed from one form to another."

All of the energy of the universe has always existed, even before the Big Bang as a singularity.

The universe has not grown in energy, it has only 'expanded' ever since the Big Bang.

This means that everything and anything within the universe that has ever existed or will ever exist, has always been here right now and always will be.
Infinite possibility has always existed, and will always be perpetually changing from one form of energy to another within our universe.

Suppose you have an inspirational thought while you are in the garden, and you move promptly to the study to write it down.
Does the thought move with you inside your head, or is the same inspirational thought reproduced when you get to the study?
Can you conceive that it is actually the latter?
Every point in the universe is a seed for the expression of the entire universe.
That means every aspect of the universe can be accessed at every point in the universe at any time. The seed of the universe, Mind, is thus omnipresent.

You cannot conceive any idea that has not already been documented by Mind as a pattern. As you develop your own internal circuitry, you become capable of receiving more of the Cosmic Pattern.
You can develop your own tuning system which allows to interact and download a portion of the Cosmic Pattern. You perceive this action as thoughts.
You believe those thoughts are yours alone, that they exist only in your head. Your thoughts do not originate in your head.
You can however, develop your receiver brain to decode a part of the Cosmic Pattern which no one has accessed to date.

Now, if you imagine the entire Cosmic Pattern of the universe is being broadcasted, then every possibility is available to be decoded and downloaded at any point within the matrix.
You are a receiver which can interact with those broadcasts. Your own mind pattern determines what ideas come through.

The inspirational thought you 'received' in the garden is being simultaneously broadcast everywhere throughout the entire universe. Once you are 'receiving' it does not matter where you locate yourself, you are always exposed to that same thought, because it exists everywhere. It is your receiver pattern which allow you to access the Cosmic Idea wherever you are located.

Imagine your mind is acting like an induction coil, and once tuned to a thought-body, it will receive that waveform at every point in the universe, because all expression is being simultaneously broadcast everywhere.
The most powerful/inspirational thoughts come to you through your heart, not your brain.
Cosmic Mind is a broadcast station. Mind simultaneously broadcasts a program which contains infinite and all possibility. That broadcast is the total limit of Mind's ability to conceive Idea.
That entire potentiality is in and surrounding all expression. Man has been given the ability to condense from the pool of infinite possibility any expression he so desires.
Imagine a radio station broadcasting every written word, every song, every spoken word in one single data burst. Mind is doing exactly the same thing.
Every possible thought is being simultaneously broadcast, what is received is up to you.

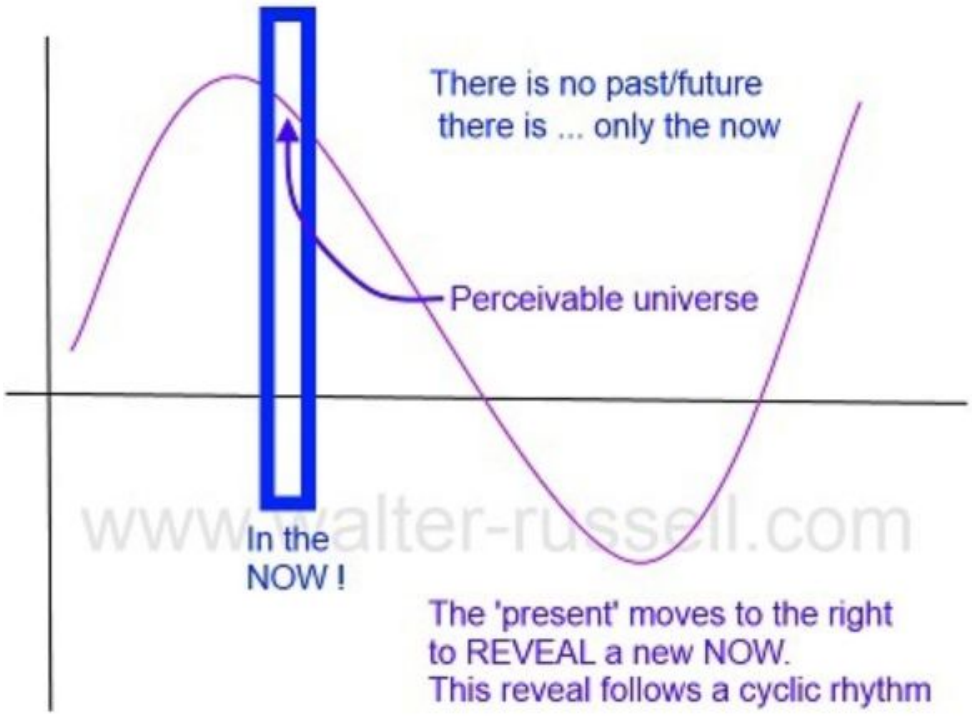


Figure 7 - There is no past or future, because infinite possibility has already been conceived and is available right now. There is only 'now'.

It may be difficult to imagine that everything that has ever happened or will ever happen is already unfolding right now.

Your ability to experience that infinite possibility is determined by your own awareness of Mind and your awareness of your place in the Cosmic Consciousness.
You are a receiving station. You are your own antenna. What you condense from the pool of infinite possibility is limited only by your thinking.
There is only 'now', and in that instant every possibility of Idea is simultaneously broadcast.
Mind conceives Universal Idea, and it is available for download from every point in the perceived universe.
This is possible because Idea is dimensionless. The entirety of Creation can fit in a single point.
Dimension is not required.
This dimensionless pattern is what is broadcast by Mind. Your task is to develop and grow your own personal antenna to interact with the flow of the Cosmic Pattern.
The universe you sense as real is only a transient image, exactly how a movie image is projected onto a screen.
There is no past or future because the universal image is constantly being replaced with an updated version, seemingly countless times per second.
This is how Mind Thinks. The past and future exist solely in the Mind.

9. The Cubic Wavefield

"Within the Cube lies the secret of the Wave"

Although we start this explanation with the cubic wave field, it may not be a suitable starting point for all. Beginners should not get too disheartened by this model.

Keep in mind, the cubic wave field is not a physical structure, it is metaphysical in character. The cube model is typically back-referenced from the wave model.

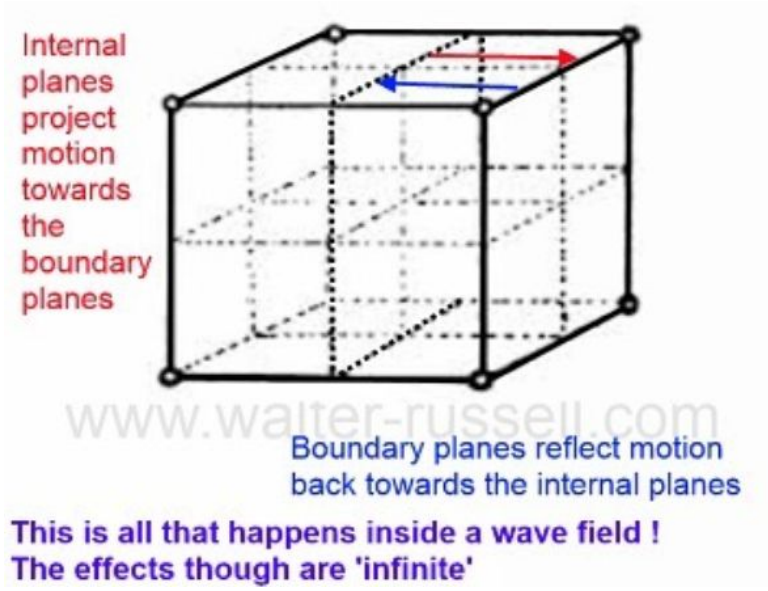

Internal planes project motion towards the boundary planes
www.walter-russell.com
Boundary planes reflect motion back towards the internal planes
This is all that happens inside a wave field !
The effects though are 'infinite'

Figure 8 - Imagine the following thought experiment…

Build a six sided cube, the internal walls of which are mirrored. A light is placed in the center of this cube. When the cube is lit, the light radiates to each of the 6 mirrored walls.

This light is then reflected backwards and forwards between opposite mirrored surfaces creating (if observed from the center) a reproduced infinity image of the original source.

The original light source itself is reflected at harmonic distances from the original center as well as from each reflected center. This is how the illusion of dimension is created.

We will refer to this all-encompassing cube as the Master Cube. All of the simulated illusion of our sensed reality is contained within this Master Cube.
The Master Cube IS Mind.
Every cube (without exception) must be thought of as being comprised of 8 sub-cubes, exactly as was previously shown in “Fractal 44”.

This technique will be of great benefit to you as Walter Russell describes matter accumulating at the center of the cubic wave field while also describing wave-sections being completed at wave field corners.
The corners of the cube have special properties which you may not be aware of, although those properties are well known to science and are primarily used in navigation systems.

The Master Cube contains the whole Universe.
The Master Cube is Universal Mind, Universal Intelligence. All that Mind can possibly imagine is contained inside the Master Cube.

How big is your mind? How big does your mind need to be in order to imagine a galaxy? Does your mind have a size at all?

Your mind and Cosmic Mind are one. You think in exactly the same way Cosmic Mind Thinks. Can you conceive the universe as being the result of an imagined thought?

When you imagine a galaxy...the entire imagined image fits inside your head...doesn't it?
Now imagine 10 galaxies, or a 100. Your mind is your master cube. The images are not limited by dimension.

The illusionary simulation in which your body is part, is imagined by Universal Mind in exactly the same way. Your physical body is an imagined thought of Mind. The entire matrix is a Mind projection.

The term matrix is used to describe the simulation; the illusory universe of matter, form and motion. It implies that there is something outside of our visible universe of effect; i.e. The Creator's Mind. Can you guess who that is?

The concept of the cubic wave field is that of a 'container' within which an moving expression of Idea can manifest.

The entire universe is God-Mind. God-Mind is Stillness. Walter Russell describes Stillness as dark, empty space.
There are no dimensions to this Stillness, because there is no motion. Dimension only comes into being when motion begins, and motion only comes into being as a result of Mind's desire to express Ideas.
That expression manifests as a rippled disturbance to Stillness.

So, you can think of this Stillness as being omnipresent (everywhere at once) and yet it is dimensionless. This Stillness is the realm of the God-Mind, and it is from this realm that our 3D universe is projected. How is this achieved?

An apparent division of Stillness is created by the God-Mind. Stillness is often referred to as a plane of zero curvature, because curvature is a measure, a dimension, and dimension is only associated with a universe of motion.
The entire universe of motion manifests to our sensing inside the Master-Cube. Walter Russell also refers to the cube as the wave field.

The cubic wave field is made up of 9 mirrored planes; 3 internal planes and 6 boundary planes. The 3 internal planes are used to project images out into the wave field, while the boundary planes are used to reflect images back towards their origin.
These 9 planes are termed planes of zero curvature because they are flat and without distortion.

Walter Russell draws on the analogy of a calm pond without any ripples evident on the surface of the pond. The undisturbed surface would thus be described as a plane of zero curvature.

These planes do have character, and their properties apply to all planes. If we now examine one plane in detail, and define some of it attributes, we can then apply those characteristics to all planes, both internal and boundary.

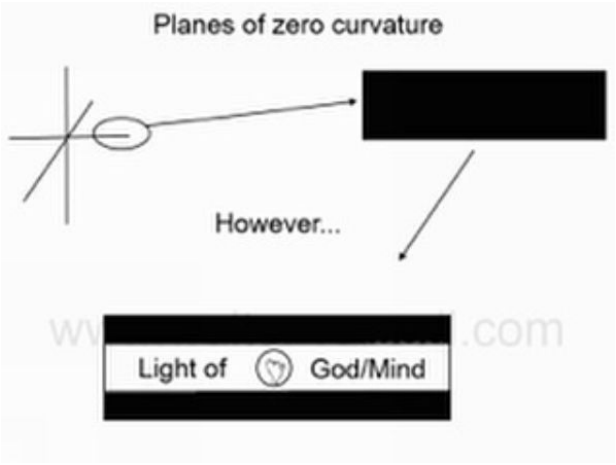


Figure 9 - This apparent division occurs across a plane of zero curvature.

Planes of zero curvature become evident when motion stops, like when a ball is thrown into the air, the ball stops before returning to the hand. This immediately implies that any expression of motion is therefore curved or distorted in some way. In fact, this curvature is the cause of motion in the first place.

Although the depicted figure isolates out individual x,y,z axes, the lower portion of the image is the focus.

Mind is everywhere at once. It becomes evident at planes of zero curvature due to the motion surrounding it.

In the image above, a portion of the x-axis is expanded for clarity. The God-Mind resides IN this axis of zero curvature. Mind exists in all planes of zero curvature, because Mind is every plane.

Another important characteristic of the plane is any point along the plane is the same point because it is the same Mind.

Now, imagine instead of simply visualising the plane of zero curvature as a line or plane, imagine the God-Mind IS every projection and reflection plane. Planes of Stillness are Mind. Imagine if the magnified x-axis above expanded to fill the entire wave field. Mind is all there is. The lower portion of the image indicates that a division of some kind occurs. This is only a representation of the mechanism of Mind-Thinking.

Light projected by the God-Mind is cast to create a 3D illusion, created by motion. Ripples on the ponds still surface. This is all our perceived reality is. It is a moving disturbance, caused by Thinking-Mind. The disturbance manifests as a wavy motion, which our sensing are programmed to detect and interpret. The still pond is Cause while the wavy ripples are effect.

The first great lesson Walter Russell's Cosmology can teach a student is the true nature of Cause, and not allow too much credence be given to sensed (effect) experiences.
Motion is the unnatural state of our perceived universe.
Stillness, and your relationship to that Stillness is your first lesson.

Because Mind is omnipresent, all 'points are the same point', which implies all points have the full potential of Mind. Therefore every point can unfold any possibility of a Thinking Mind. Expression of this Mind can therefore spring from apparent 'nothingness' at any point in the perceived universe.

The wave cycle is the journey of expression from that apparent 'nothingness' out into a seeming 'somethingness' and the return from that sensed expression back to motion-in-inertia or Stillness.

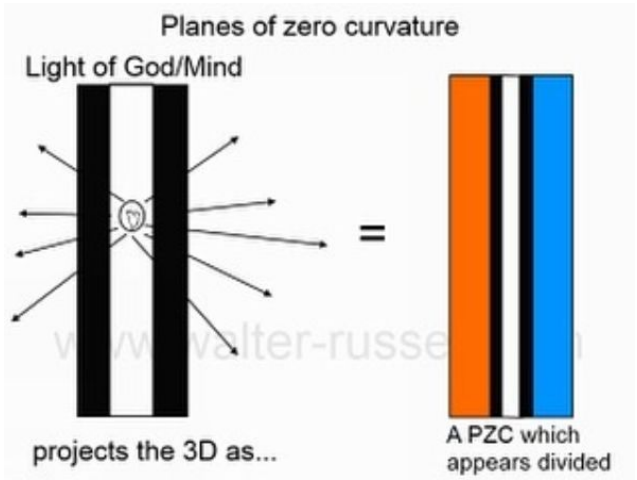


Figure 10 - This image implies that as Mind expresses Thinking, an apparent division is created by projection one half of the Idea/Concept in one direction with the second portion of that same Idea/Concept in the opposite direction.

Imagine, an Idea is divided into a red spectrum signature and a blue spectrum signature. Neither one by themselves is sufficient to tell the whole story of the original Idea.

When those two lights come together, then the original Idea is reproduced as an expression in motion. The original Idea is never created.
When you decide to bake a cake, a physical body (cake) is created in the image of the thought in your mind. The thought itself, never leaves the metaphysical/spiritual universe; your mental/metaphysical self.
So, when Mind desires to express Ideas/Concepts, cubic wave fields are constructed to contain and house a moving expression of Thought.
Remember, a cubic structure by itself, has no meaning to our sensing. Without motion, there can be no expression.

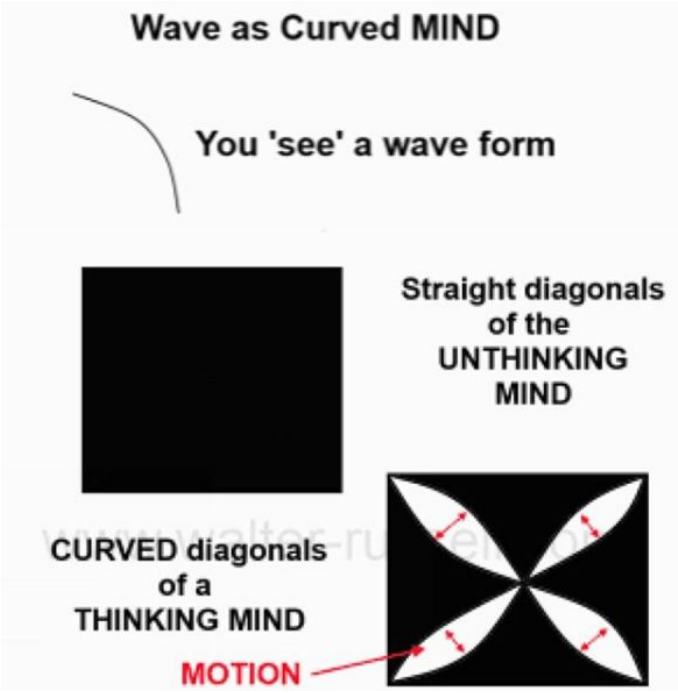

Wave as Curved MIND
You 'see' a wave form
Straight diagonals of the UNTHINKING MIND
CURVED diagonals of a THINKING MIND
MOTION

Figure 11 - These images indicate how the static metaphysical universe sits in the dynamic universe of apparent motion.

Notice how the white petal of motion is created not as a physical thing, rather it comes into being as a result of Mind's Curved Thinking activity.

Think of this motion exactly as you would a vibrating string. We know the string must oscillate across a static equator to express itself in reverse.

When Mind, in thinking, expresses a desire to give life to an Idea, an apparent division within Mind occurs which brings the petals into manifest.

A diverging, radiating, expanding light is sent from the central internal projection plane out towards the boundary. This radiation is condensed and reflected back in towards the internal plane of origin.

The two opposed wave streams interact and when an equilibrium is established a standing wave is produced between the two points of stillness or nodes.

The standing wave and the internal petal symmetry it produces is of vital importance in determining how moving images are manifested.
The actual production of the standing wave will take further clarification, which will be included further in this section for visual clarity.

Tip: think of the image above as you would shine light through a stencil. Mind appears to divide and create a 'gap' into which your sensing fills in to 'see' an image where no such image exists.

The omnipresent black background of Mind appears to divide and thereby create a 2D pattern.

Your sensing then fills in the gaps to 'see' matter and form as a 3D expression.

This is why scientists find more space than matter when looking inside the atom.

10. Wave Sequences Project 2D into 3D - Flower of Life Origin

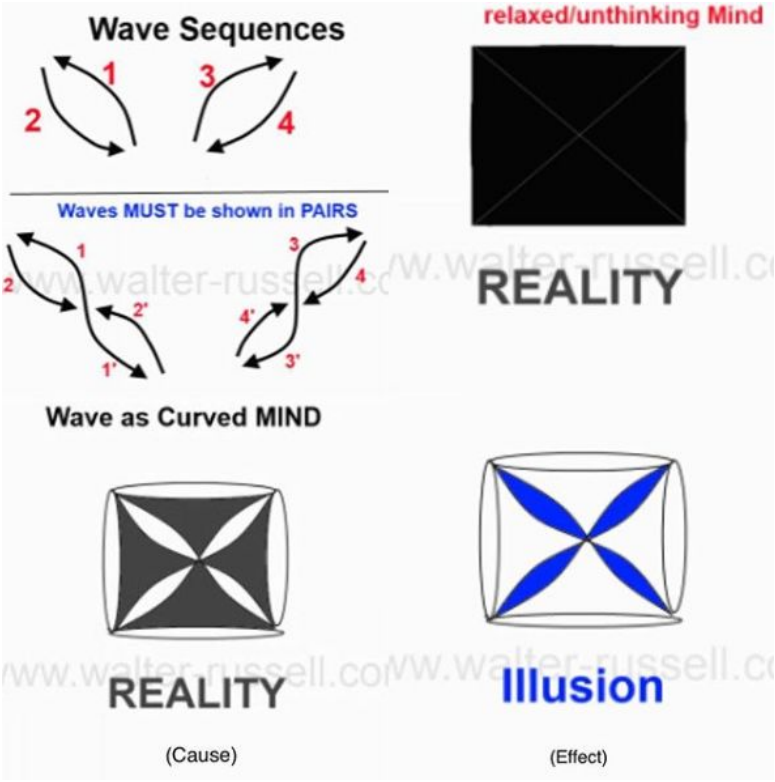


Figure 12 - The first image indicates the wave sequences.

There is always action followed by equal & opposite reaction.

Sequence 1 is a projected action while sequence 2 is the reflected reaction. Wave actions are completed as a balanced pair.

The second image at the top of Figure 12 has straight diagonals as therefore we can say that Mind is undivided not wishing to express an Idea. This model is consistent with the concept that Mind is omnipresent, and every part of Mind is the same Mind.

The first image on the bottom of Figure 12 indicates a desire of Mind to express Idea. See how the apparent curvature seems to open a space into which an image may be produced.

This image implies one part of Mind is acting as an anode while another part of Mind is acting as the cathode, and the string/flower petal vibrates and oscillates between the apparently different aspects of Mind.

This motion only becomes manifest when the 2D pattern arises to create a 3D moving expression of the 2D pattern.

Our sensing is tuned, in fact designed, to only sense the vibrating/oscillating blue areas as indicated in the second image on the bottom of Figure 12.

We believe this motion to be real when it is only an illusionary effect. If the first image on the bottom acts like a stencil, our sensing fills in the gaps and we 'see' a reality which is not 'real'. We 'see' a similar effect when we observe a wave travelling although the motion is only up/down.

It is important for the reader to understand that these images only contain the x and y axes in order to ease the visual aspect. The introduction of the z axis into these images would give us a 3-dimensional representation of the flower of life pattern.

The flower of life grid can represent the 2D pattern which will unfold as a 3D moving image within a wave field.

This is evident in the fact that the flower of life is simply a 2-dimensional representation of a field of x, y and z wave-axes, each held within their own 6 sided cubic wave field. This topic will be expanded on further into this section.

The flower of life grid is depicting the 2-dimensional layout of mindspace, where each 6 sided intersection of axes is another zero point in which Mind has the potential to manifest into the infinite wave field.

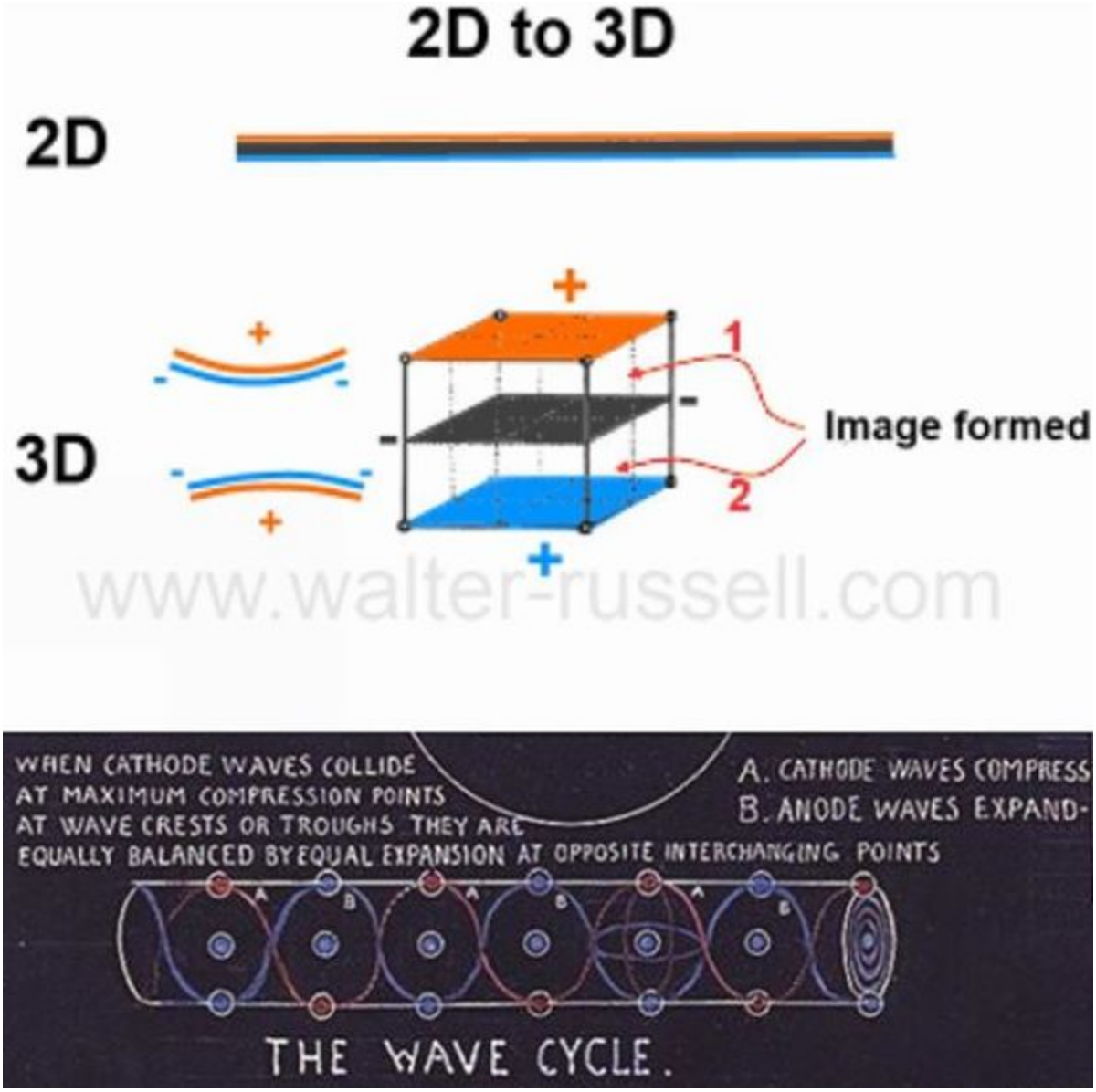


Figure 13 - Electricity is the force of Mind and the cause of all curvature and polarity.

When Mind wishes to express a Thought, a 2D pattern (a negative) is prepared and suitably dimensioned.
In order to bring that image to life (into the 3D) it must be imbued with motion.
Why motion?
Because our sensing has been designed to interact with motion.
Before we begin the construction of a cubic container, consider the following important premise.
Mind is omnipresent, there can be nothing else in existence.
However, to our sensing, Mind appears to divide as pictured in the first image above.

The red aspect is generated between the -VE central plane and the red boundary plane, while the blue aspect is generated between the -VE central plane and the blue boundary plane.

Tip: To avoid any confusion concerning simultaneous versus sequential motion, we must apply a rule to this image.
The cubic structure in the image above is actually showing a simultaneous sequential motion of wave sequences. Once motion begins, everything changes because motion imparts a dynamic movement to the image. Nothing stays still long enough to be recognised as solid structure.

Motion begins in the top hemisphere then is repeated to the lower hemisphere in the next wave field, meanwhile motion in the bottom hemisphere is also repeated to the top hemisphere of the next wave field; oscillating in sequential cycles, forever.

Notice, how it is the Thinking impulse which gives the impression of motion within the physical universe. Our universe is constantly being reproduced by the sequential pulsing of Mind Thinking. Each pulse creates the entire universe again. Just like a film strip; the entire movie is made up of thousands of individual still images. Our physical universe is also switched on/off/on every single moment from every single point (omnipresent Mind). This appears to our sensing as a moving, imaged physical universe, when in reality, no such movement is occurring at all.

Remember, we said that all Creation Idea lies in the Still axis, in this case the horizontal wave axis. The process of Concentrative Thinking by Mind within that axis creates the illusion of a division; a polarised condition which manifests as a N/S disturbance which we sense as our physical universe.

If the universe of motion could be slowed down, the secret of the illusion would become obvious.
The individual frames/pulses of a Thinking Mind would be revealed.

But, when those frames are run at 186,624 miles/sec; we sense a solid, materialistic world.

This image shows the 2D plane 'edge on' at the top, and also that Mind is partially divided by assigning the top side a red and the bottom side as blue.

(This is only a concept for visualization because a red/blue divide can only come into manifest as a result of curvature as we will soon see, and can not exist on a plane of zero curvature).

This 2D plane may be considered as possessing 4 poles. An E/W pair to dimension the width of the plane and a second E/W pair to dimension the depth (receding into the distance) of the same plane.
The distance between them is minimal in 2D, however when the distance between red/blue is maximum, a cubic wave field will result from these 4 poles.

The 3D physical moving expression is effectively mapped out first as a 2D red and blue negative, so that the positive red aspect can be projected in one direction, while the blue positive aspect can be projected in the opposite (180°) direction.

This is a dimensionless plane because it has no (N/S) 3D character at all. Projection has not yet begun, because division has not yet happened.

The inert gas expression is best described as this edge on almost 2D flat geometry. This is why hydrogen and helium are so abundant in outer space. These gases represent the seed conditions from which most of our perceived matter unfold or germinate.

One Mind begins to Think, electricity is born. Electricity is the force which drives the red/blue faces away from one another in opposite directions.
Mind always remains still and remains anchored to the center of the wave field. Mind will act as the still fulcrum for any induced motion.

Once electricity comes into being, N/S (red/blue) polarity is born. Notice how the process of Thinking has produced two anode expressions centered by one single (Mind) cathode plane.
Why is a cubic wave field necessary at all?

The wavefield acts as a container to hold within it the desired image. This is achieved by the way motion behaves inside the wave field and how our sensing apparatus is programmed to interpret this motion.

Boundaries of straight planes are necessary to differentiate between motion in one wavefield and motion in a neighbouring wave field.

A geometric (cubic) structure of some description is necessary which will allow curvature to develop inside that structure.

Curvature implies polarity, polarity implies electricity, electricity implies Mind Expressing Thought.
Curvature is also polarized which means that there is centripetal compression in one direction and centrifugal expansion in the opposite direction.
Rotating loops implies a gyroscopic effect, for the same reason you stay upright on a moving bicycle.

A 3D geometric structure is necessary to hold the projections of a 2D pattern. That pattern is the dividing equatorial plane.
Once these conditions are incorporated into your idea of a cubic wave field model, it should become much more accessible as a structure.

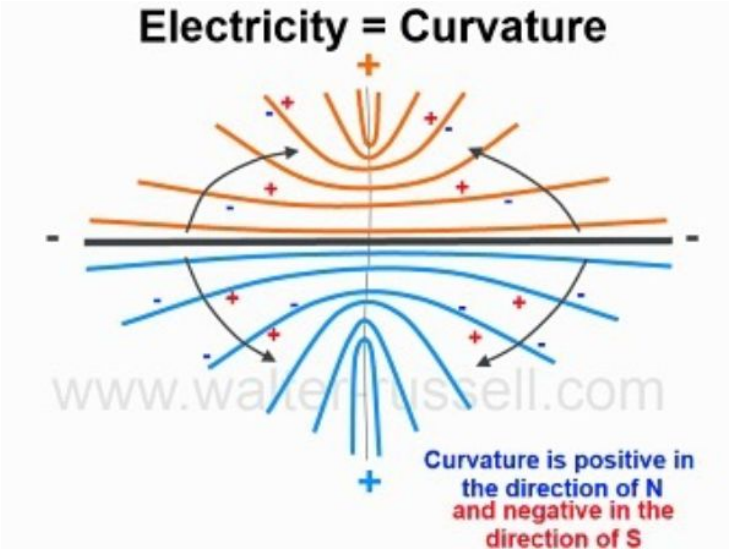


Figure 14 - Electricity is the first force to manifest into the 3D physical universe. All expression is therefore electric, and dimensioned electrically.

When these electric forces go to work, the area where the projected image will eventually form acquires a curved geometry.

Not the charge, but the 'curvature' is positive (RED) on the surface with the shorter arc, and negative (BLUE) on the side with the longer arc.

The effect is present regardless of which hemisphere the curvature is expressed.
This is Natural Law for ALL curvature.
This is a two-way universe, polarity is caused by curvature.
This curved geometry is responsible for all of the effects within the 3D physical universe that we sense and believe to be real. Our senses are simply deceived.
Notice, how the image projected from the zero equatorial plane gets refracted in towards the central axis; the greater the curvature, the greater this refraction.

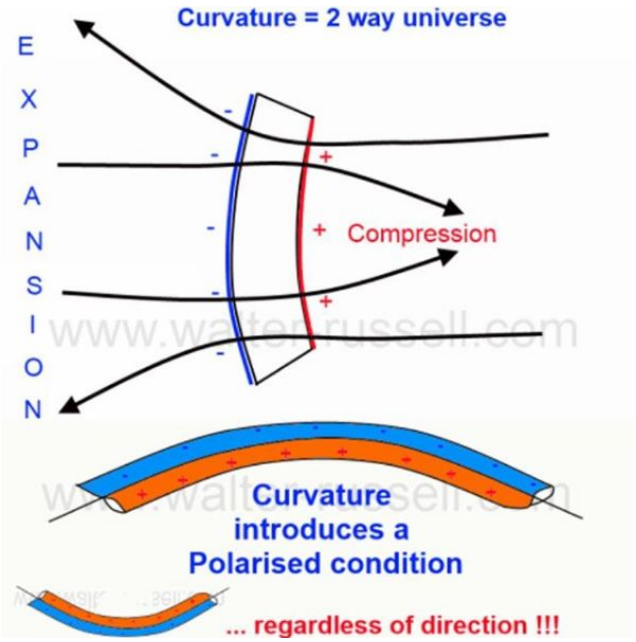


Figure 15 - Curvature is necessary in a two-way universe, whereas there is a compressing effect in one direction but an expansive effect through the same curve in the opposite direction.

Pay really close attention to the implications of curvature regarding the manifestation of red/blue character.

Notice how in the image above, blue character is present outside the red in the top hemisphere. Notice also, how red character is inside the blue in the bottom hemisphere.
This red/blue divide comes in being because of curvature, and this differential can be applied to all expressions of curvature within our universe.

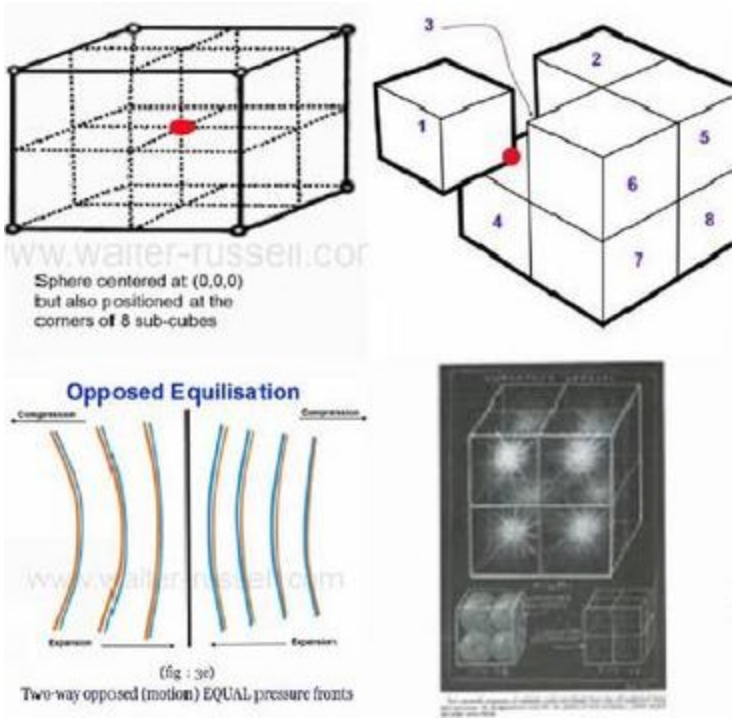


Figure 16 - A wavefield might appear as one sphere, but it is composed of eight sub-spheres.

The first two images above indicate why matter appears to have both particle and wave properties.

When motion is examined with respect to its relationship to the cubic hub center, then it appears to possess particle character.

However, when that same expression of matter is reviewed with respect to the corner of the 8 sub-cubes then it appears to possess wave like properties.

The body can thus be described as being located at both conditions (center and corner) at once.

Can you 'see' the red body positioned in sub-section 8 of sub-cube 1?
That same red body is also positioned in sub-section 7 of sub-cube 2, in sub-section 5 of sub-cube 4, in sub-section 6 of sub-cube 3, in sub-section 5 of sub-cube 4, in sub-section 2 of sub-cube 7, in sub-section 1 of sub-cube 8, in sub-section 3 of sub-cube 6, and in sub-section 4 of sub-cube 5.
This will give you an idea of some of the sub-dimensions at play in order to create a sphere.

Walter Russell teaches that the 3 internal projection planes are formed as follows.
Each sub-cube (1 to 8) is imbued with an electrical pressure potential.
Mind will continue to inflate these sub-cubes until they are appropriately filled to reproduce the intended idea.

As inflation reaches a critical volume, the outer surfaces of the 8 spheres push against one another, flattening along the plane between them.

When the sub-cubes are fully inflated, the potential is compressed into the 3 internal planes and the 6 external boundary planes.

This is how matter appears to emerge from a seeming nothingness. Images are formed within the large cube, by the interactions of the 8 inner sub-cubes.

It is important to complete some additional research in order to fully understand the concept of sequential wave-motion; how an echo is reproduced as a copy of the original body.

The boundary planes of zero curvature are formed as follows.

If you consider the inflation of wavefield with electrical force as the internal pressure then, a plane of zero curvature is created when opposed pressures fronts equalise one another at their common intervening plane.

Tip: Don't think all straight plane of simply as a condition of ZERO/NO polarity, rather think of it as BALANCED polarity.
Sodium and Chlorine unite in a balanced way to create a cubic straight walled (salt) structure.
All other crystalline structures are a result of a non-balanced geometry about the common equator.
Wave fronts of different frequencies will pass through one another. Sex-mates will oppose one another; having equal balanced wave front frequencies and dimensions.

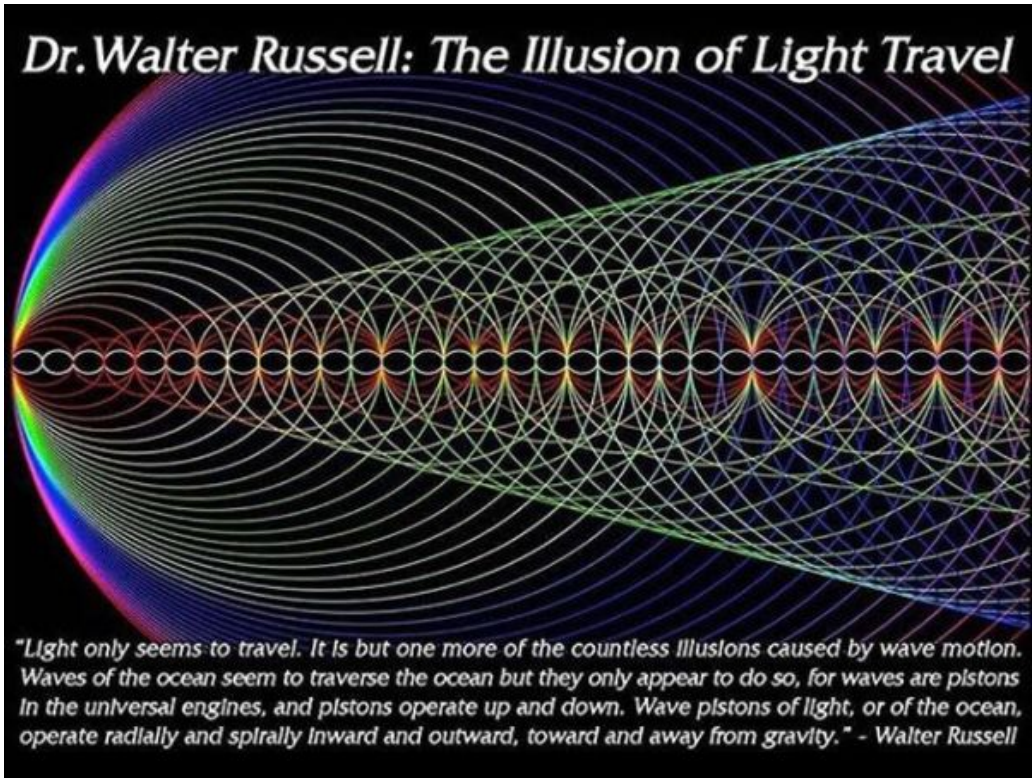

Dr. Walter Russell: The Illusion of Light Travel
"Light only seems to travel. It is but one more of the countless illusions caused by wave motion. Waves of the ocean seem to traverse the ocean but they only appear to do so, for waves are pistons in the universal engines, and pistons operate up and down. Wave pistons of light, or of the ocean, operate radially and spirally inward and outward, toward and away from gravity." - Walter Russell

Figure 17 - We are all at Sea
"Waves of light do not travel. They reproduce each other from wave field to wave field of space. The planes of zero curvature which bound all wave fields act as mirrors to reflect light from one field into another. This sets up an appearance of light as traveling, which is pure illusion."

Imagine a diver releases a polystyrene sphere/ball at 100 ft below the ocean waves.
The sphere will rush to the surface as fast as it can, do you know why?
The ball seeks buoyancy or balance in its own electric potential environment.
The electrical pressures are too great at 100 ft and thus, the less dense material will rise.
You wouldn't dream of saying the sphere was experiencing an 'anti-gravity' phenomena, would you?

A gas will do exactly the same thing, falling from the surface of the ocean up into the heavens for exactly the same reason, it is seeking buoyancy.
The electric potential of the environment is too great for a gas on the Earth and so the gas will rise to find balance and rest from motion.
What would Newton have said if the diver had released an apple at 100 ft?
Newton may then have invented anti-gravity, or developed a theory as to how the moon pulled the apple to the surface of the ocean.

Consider from now on, that the universe, from the very center of the most incandescent sun to the coldest vacuous space is filled with a differential electrical potential which works in exactly the same way as the pressure differential experienced by our diver with the apple.
This force motivates the entire universe, as all matter desires to find buoyancy with its own electrical potential environment.

This is an electric universe, not a gravitational one.
Gravity is an effect, not a cause.
Matter, can 'fall' uphill as well as falling downhill.

"Gravity exerts no force, whatsoever, to either attract or repel. Gravity is a shaft of magnetic stillness which has been extended two ways from zero in the cathode of the electric current, around which electric motion can simulate the energy of its magnetic zero center. Gravity is motionless and changeless."

Imagine you were to fabricate a hula-hoop in a workshop which forms a perfect ring or loop.
Where is its center?
The center may be easy to find if you place the loop on the bench and mark the location of the central hub on the bench. Now, hold the loop in the air. Where is the center of the loop now?
It may not be so easy to locate that center while the loop is suspended in space, especially if the hoop is moving/rolling. But, no matter its location a center always exists as a hub equidistant from the rim.
The point is, that central hub is anywhere in the universe.
The central point only becomes evident when the circular rim is present. You don't have to bring the central hub with you when you move the rim, that central location simply becomes exposed wherever you express the rim.

The effect of gravity is exactly the same as the exposure of the central hub above.
Gravity exists everywhere, it is not created.
The effect of gravity becomes exposed by motion, just as a rim exposes a central hub.
Mind too, is everywhere, omnipresent. It too, becomes exposed by fast motion.
Motion circulates in spirals around a 'gravity shaft' (equator) of Stillness.
That Stillness though, is already everywhere, it is not created.
The illusion of the universe of motion is designed to expose Stillness, but our senses are distracted by that very motion and we lose sight of the true nature of reality.
Because Stillness, Mind, and expression of gravity are omnipresent, we can thus manifest any motion we desire anywhere to express any Idea of Creation.

Think of the universe as an ocean of potential, and matter will always adjust its position in that potential, until its finds rest and buoyancy of electric potential.
If Newton had originally thought of all material bodies as moving to find buoyancy of electric potential, rather than being 'attracted' by another body, he would have realized that a balanced body has no weight associated with it, and therefore he would not have pursued a gravitational model.
Weight is not a property within matter, rather it is an effect of the interaction a body has with its environment. Look what happens to one's weight when you climb a mountain.
The greater that potential difference between a body and its environment the greater the dimension is expressed as weight, which applies to the moon attracting the ocean surface to create the tides.

The space between the Sun and the Earth is cold, because the radiation from the sun needs to condense in order to regenerate the condition of the sun. If an object entered the space between the sun/earth then that object would act as a condenser and heat.
There is a plane of zero curvature which exists between any two bodies. It defines the balance point of their respective potentials.
This plane of zero curvature (PZC) lies much closer to the Earth because the emanations from the Sun are of such potential pressure that the body of the Earth is held buoyant at 93 millions distance.
The PZC lies where the emanation from the Earth matches that of the Sun. However, as radiant light reaches the PZC it changes direction and becomes a generative stream focused towards the Earth.
This is why space is cold and light invisible.
As these streams are condensed again by the Earth, the conditions on the sun are reproduced, to scale, here on Earth. If the Earth was capable of condensing all of the sun's emanations, then the Earth would look like and behave as a sun. Thankfully, through intelligent-design the Earth's specific ability to act as a condenser will only allow an Earth to manifest.
Man also applies the same principle, to scale, in a hierarchical-distillation column in his chemical separation processes.

Another interesting process to investigate is the commercial printing process. You may intuitively guess that the 3 colours of cyan, magenta, and yellow and are used to generate a positive image from a negative.
What may not be so obvious, is why a 4th colour black is also used to complete that positive image.
In order to reproduce a positive image of a poster, 4 separate negatives are utilised, one each for cyan, magenta, yellow and black.
Each negative is positioned onto a card substrate and the appropriate colour is applied. Each subsequent negative is then overlaid on top of the already applied colour, until finally the black pigment is added.
It is only after the black colour is added does the image take on a feeling of 'depth', and 'contrast'.
Do you think cold dark space plays a similar role in creating the illusion of the simulated 3D matrix?
The core of accumulated potential may be represented in wavelengths of visible light, red, cyan, yellow, etc., but our senses are designed to react to a fluctuating vibrationary field.
The blackness of space acts like the thin strip between two frames of a movie negative.
This 'off' condition facilities the illusion of movement; i.e. one frame to another.

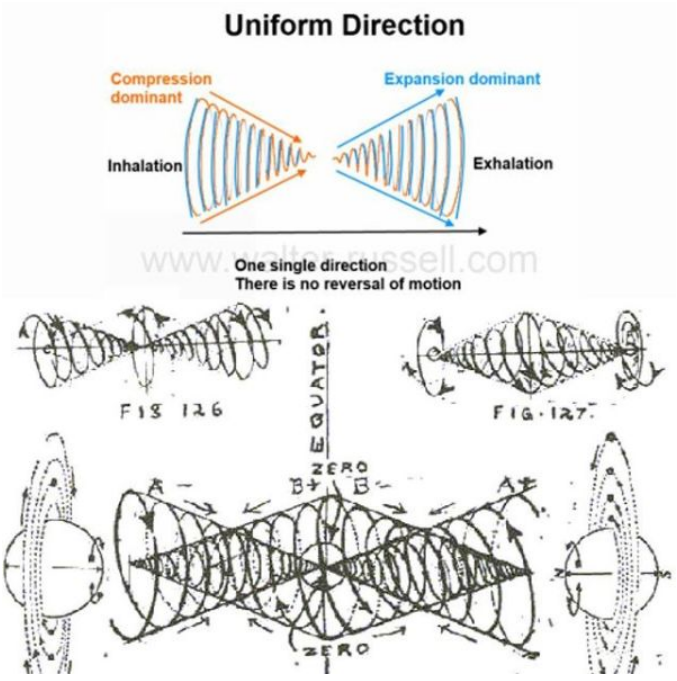


Figure 18 - The cyclic appearance/disappearance of matter is the evolution of mass from plane to sphere.

If we now think of the introduction of the electric force into the wavefield as an inflation/deflation cycle, then 3D 'condensed' matter unfolds as the wavefield inflates through an inhalation of this electrical potential.
This generative process we perceive as a living, vitalising motion.
As this potential is allowed to collapse or is 'exhaled', the projected image returns to its Source. To die means to lose N/S character and thus the image returns to the 2D plane. It does not fall backwards.
Can you now 'see' that by the process of Mind Thinking, Mind breaths into the wavefield, vitalising it. The electrical pressure holds the expression away from the horizontal zero wave axis in the form of a N/S projection. When Mind relaxes from Thinking, the wavefield deflates and returns that potential to Source through exhalation. All motion is caused by Mind 'giving CPR' to Thought-bodies.
Your physical self is a direct product of a Mind Thought.

11. Standing Waves and the Flower of Life - 2D XYZ coordinate grid

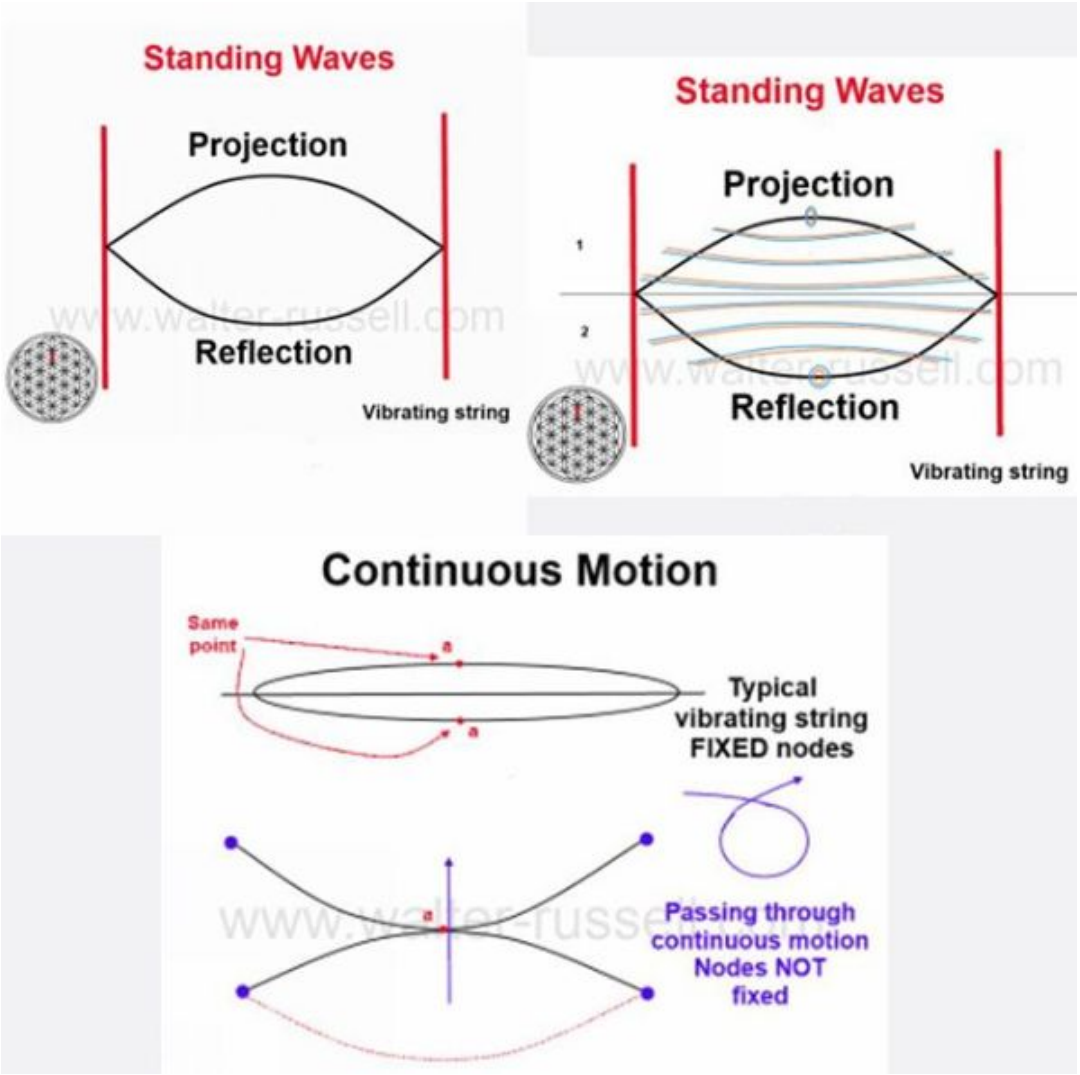


Figure 19 - The first image represents the result of Mind infusing a wavefield with vitalizing electrical potential. The wavefield is breathing. Mind cannot be separated from its own Creation.

The curvature indicated in this image seems at odds with some of the previous images.
This however, is not the case. Within the physical universe, a familiar oscillating pattern is observed in experiments between two fixed nodes.
Curved wavefields on the other hand operate without fixed nodes, because those nodes need to be free to distort to form rings about the N/S axis.
One can imagine the 2D flower of life pattern dimensioned in Mind manifesting as a 3D sphere when set into motion.
Tip: Don't confuse the curvature indicated in previous images with the apparent opposite curvature represented in this image. They each represent entirely different concepts and each is valid in their own right. The previous images represent invisible or metaphysical properties, while this image indicates a physical manifestation of the previously shown invisible curvature.

The second image in Figure 19 is a redraft of the first image to include the invisible lines of curvature that were previously explained as well as the visible effects. Namely, the appearance of vibrating matter within the perceivable universe.

In a vibrating string, the lines of curvature do indeed turn inside out as they transition from the upper hemisphere to the lower hemisphere, but they do not reverse their effect.

Instead they become the other. Red compression above becomes blue expansion below.
The positive apex and the negative apex are the SAME point.

Remember also, lines of curvature join regions of the same electric potential. This is one of the roles of E/W polar control.
This is how and why two identical anodes manifest; as a result of turning inside out across the equatorial divide.

The vibrational motion indicated in this image is the typical familiar motion observed in a vibrating string.

This type of motion is only possible because the oscillation occurs between two fixed nodes. This would suggest that Nature simply vibrates backwards and forwards across a common equatorial plane. Walter Russell teaches that Nature does not follow this model.

Walter Russell teaches us that motion is continuous, it spirals centripetally inwards then centrifugally outwards without any change in direction.

In the image on the bottom of Figure 19, when the wave curves upwards to a maximum at the apex, this apex continues forward to unwind. Notice, how the two nodes appear to shift to enable the reverse unwinding.

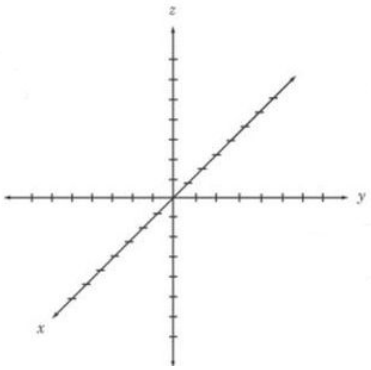
This is why all things will always be in motion; all 'causes' or Mind Thoughts generate observable 'effects' in motion.

Spacetime is 'point-less' meaning that Nature operates with unfixed nodes.

This allows one 'effect' to become another 'cause', in a forever-repeating sequential wave-cycle of images being projected at the speed of light; which we consciously observe as life in motion.

As mentioned before, The introduction of the z axis into the previously shown wave sequences (Figure 12) would give us a 3-dimensional representation of the flower of life pattern.

The flower of life grid can represent the 2D pattern which will unfold as a 3D moving image within a wave field.



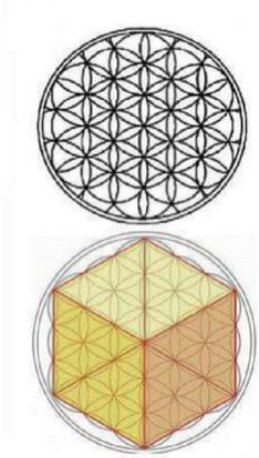


Figure 20 Figure 21 Figure 22

This is evident in the fact that the flower of life is simply a 2-dimensional representation of a field of x, y and z wave-axes as seen in Figure 20, each held within their own 6 sided cubic wave field, as seen in Figure 21. Here we see a clear correlation between the flower of life grid, “Fractal 44” as well as Walter Russel’s cubic wave field model. The flower of life grid encodes an infinite cubic fractal; 8 cubes within a cube, within a cube, within a cube, within a cube...infinitely repeating into both micro and macro scales.
Figure 22 shows how the cubic xyz coordinate plane is also encoded into the center of the star-tetrahedron shape, which is also encoded into the flower of life.

The flower of life grid is depicting a 2-dimensional interpretation of the layout of mindspace, where each 6 sided intersection of axes is another zero point in which Mind has the potential to manifest into the infinite cubic wave field that is encoded within the grid.

The next page contains a bunch of simple images that further display how the flower of life is the 2D pattern which will unfold as a 3D moving image within a wave field. The flower of life is simply a 2-dimensional representation of a field of x, y and z wave-axes, each held within their own 6 sided cubic wave field. It seems that you can see the 2D flower of life transform into an illusionary 3D grid at any point in the pattern by a change of visual perception.

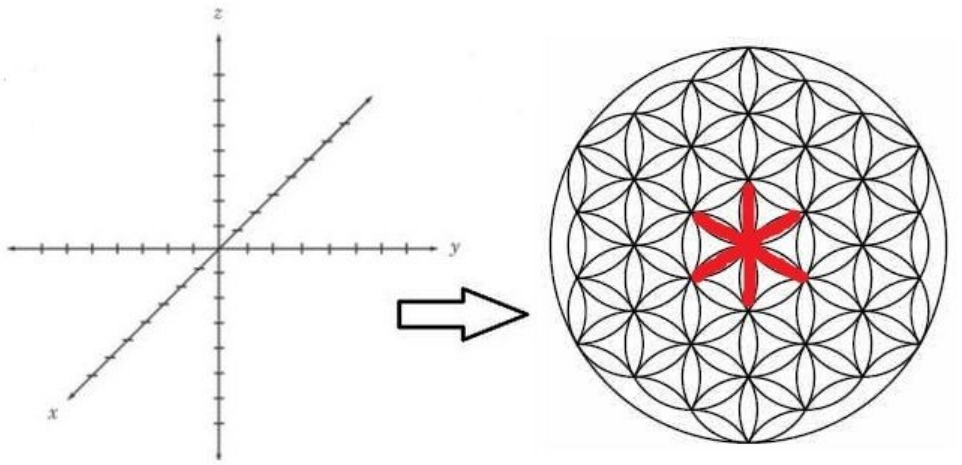


Figure 23 - XYZ coordinate grid and the Flower of Life.

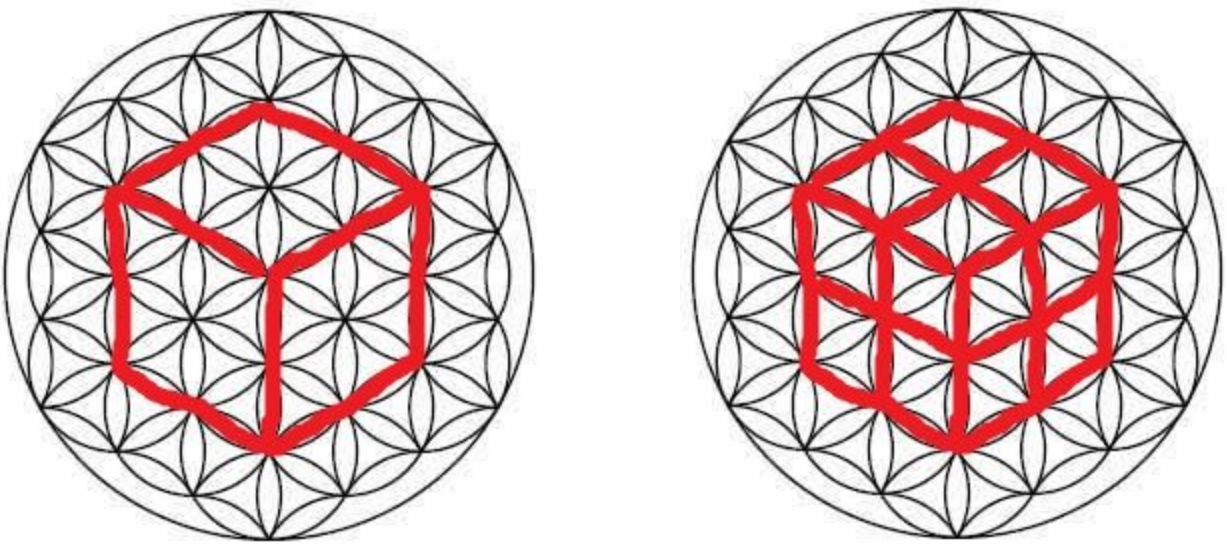


Figure 24 - Fractal 44 or the ‘Hypercube’ within the Flower of Life.

12. Tetrahedron Octaves - Star Tetrahedron is a Cubic Structure

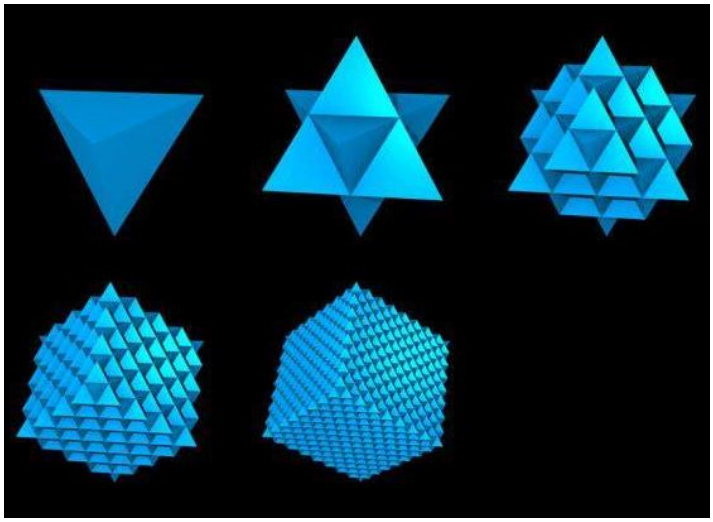


Figure 25 - Depicted here are tetrahedron structures multiplying by octaves: 1, 8, 64, 512 & 4096.

The tetrahedron is the most fundamental geometric building block of the geometry of the fabric of the vacuum of space.

Two polarized larger tetrahedrons creates a star tetrahedron comprised of 8 smaller tetrahedrons.

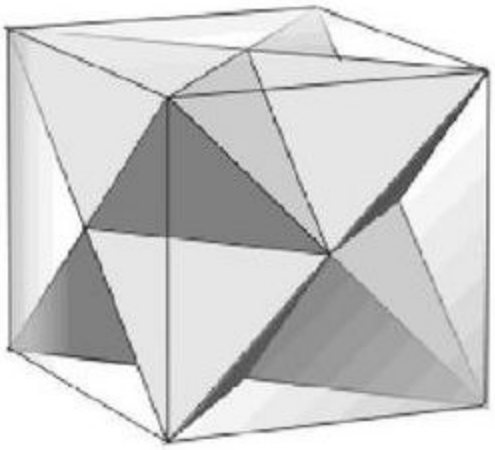
Putting 8 star tetrahedrons together creates a 64 tetrahedron grid inside of which 2 octaves of cube octahedron are formed: a perfectly balanced geometry that Buckminster Fuller called the "vector equilibrium".

The cube octahedron is the only 3D geometry that is equal and opposite in every possible way, where every line (vector) in the geometry are of equal length, including from the center of the geometry to the edges.

Nassim Haramein theorizes that an infinite scalar fractal is the very fabric of our existence as more and more tetrahedrons create fractal octaves of this perfectly balanced vector equilibrium geometry.

At a total of 512 perfectly stacked tetrahedrons, 3 octaves of cube octahedron geometry are formed, at 4096 another octave and the pattern continues both infinitely bigger and infinitely smaller to create the perfectly balanced geometry of the space that exists on all scales everywhere in the universe.

Figure 26 - The star-tetrahedron, 64 tetrahedron grid and it's larger octave structures, are cubes...only they have none of the lines of a cube. This is easily seen in both Figure 25 and 26. It's as if the Triangles/Tetrahedrons/64 tetrahedron grid octaves, create Circles/Spheres/Toroids that define metaphysical Squares/Cubic wave fields.



13. The Hypercube

The average Hausdorff dimension for our space-time is
D(4) = 4 + 1/Φ^3 = Φ+ Φ^2 = Φ(Φ^2)
= 4+1/(4+1/(4+1/(4+1/(4+…)))) = Φ^3 = 4.236…

The general El Naschie's dimensional form is
D(n) = Φ^(n-1) = 1/Φ^-(n-1)

For our real n = 4 space-time, the general El Naschie's dimensional form results in the average Hausdorff dimension for our space-time.

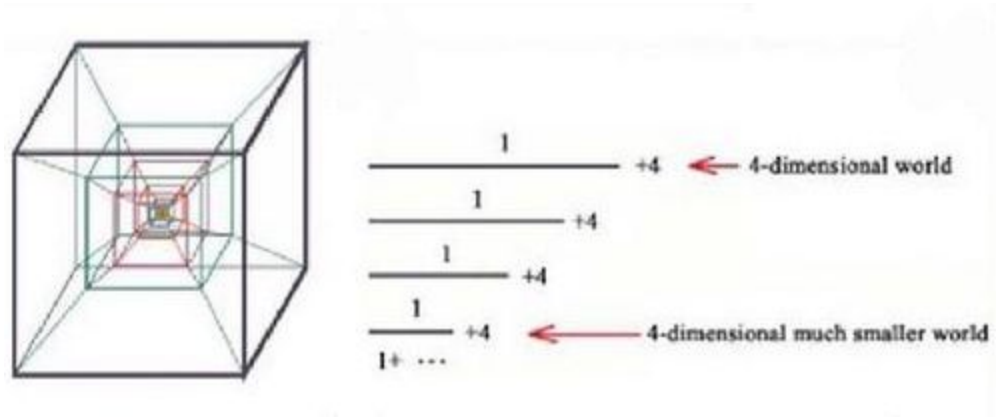


Figure 27 - The fractal explanation of this equation is shown here and looks like a Russian doll with self-similarity in all scales.
This familiar looking cubic fractal is called the "hypercube".
We can see a clear correlation between El Naschie's hypercube model, the 64 tetrahedron grid of the vacuum, the flower of life grid, "Fractal 44" and also Walter Russel's cubic wave field model.
All of these models are completely interchangeable and explain the same concept, namely an infinite cubic fractal; 8 cubes within a cube, within a cube, within a cube, within a cube...infinitely repeating into both micro and macro scales.

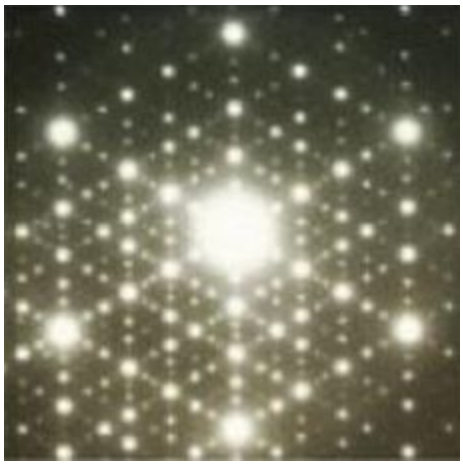


Figure 28 is an example image of the geometry that is revealed by electron diffraction which provides further reinforcement of the omnipresent hypercube fractal model that has been explained through many different perspectives in this post.

Figure 29

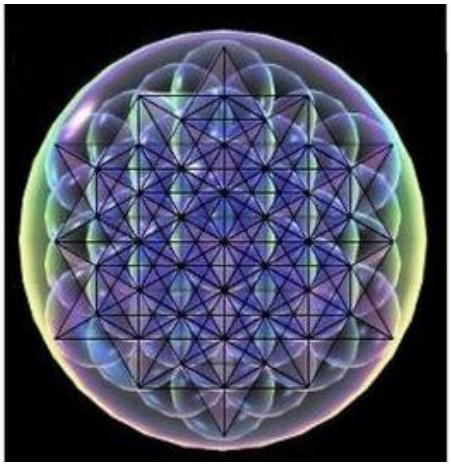


Figure 30

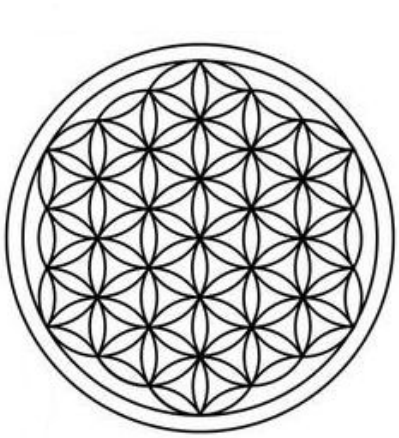


Figure 31

Figures 29, 30 and 31 provide the reader with a visual explanation of the direct correlation between the 64 tetrahedron grid of the vacuum and the ancient symbol of the flower of life.

The 64 tetrahedron grid is a 3-dimensional view of the 2-dimensional flower of life grid.

https://imgur.com/ou6fp9Y

Figure 32 is actually a video depicting the 64 tetrahedron grid of the vacuum as observed from many different perspectives. This video gives a clear visual that reinforces the idea that the 64 tetrahedron grid and it's larger octave structures are indeed cubic structures...only they have none of the lines of a cube. This is why Triangles/Tetrahedrons/64 tetrahedron grid octaves create the Circles/Spheres/Toroids that define the metaphysical Squares/Cubic wave fields of the omnipresent hypercube fractal in 4 dimensional spacetime.

14. "To know the mechanics of the wave is to know the entire secret of Nature."

We exist simultaneously in two universes. One universe of the polarized physical realm and the second of the unpolarized spiritual realm.
The spiritual realm is the hardest to fathom because our senses on which we are so reliant do not register and record within the unpolarized realm of stillness and uniformity.
Our senses are designed to operate only in a polarized field.
The spiritual realm also known as the metaphysical realm is as real as the physical universe of form and apparent solidity.
"Mind is spiritual, and constitutes the invisible universe of Cause. Matter is physical, and constitutes the visible universe of Effect."

Imagine you meet up one day with Beethoven and he begins to tell you about this tune he has going around in his head.
He describes what story is unfolding and how the different parts of the orchestra will play their part. He might describe the melody, and arrangement necessary to replicate his mind idea.
Even with the best will in the world, you might only be able to keep up with all of his enthusiasm for a short period, as you attempt to connect your physical senses with his metaphysical mind.
You need more concrete physical evidence of his mind idea.

Once his idea has been successfully transcribed and the orchestra fully practiced, you can then 'sense' and appreciate what Beethoven's original mind idea was. Beethoven had to first create a physical body (body of musical sound) to replicate his metaphysical idea.
This is how the unseen idea becomes a physical reality.
Many scientists believe that the physical reality is the only reality, and yet it's own evidence suggests otherwise.

How you make your physical body behave within the physical realm is your choice, but the desire to follow a particular path is rooted in your metaphysical body.
The desire to express any idea is the only energy of the physical universe.

Electric force is the measure of the differential between the metaphysical idea and the physical expression. The greater the desire to express idea, the greater will that desire manifest within the physical; the greater will that desire be registered in electric current.

So, all expression of matter is as a result of the desire of mind to express an idea.
Remember, 'as above, so below'.
The Creator's Mind does exactly the same thing to express the Creation Idea.
Opposed physical bodies are created to interact to create the illusion of form and solidity, just as Beethoven expressed his mind idea as a body known in physical form as the 5th symphony.
This physical sound is the exact replica of his original metaphysical thought pattern.

When we listen to this body of music our senses can record within our metaphysical bodies the emotions, feelings, inspiration etc. that Beethoven himself felt. This is how idea is reproduced. You could now channel you own desires and inner inspiration and create another physical body of work; maybe a cake, a painting or a novel.

The physical realm could not exist without the metaphysical realm, and visa versa.
The physical is the realm of the sphere, while the metaphysical is the realm of the cube.
Almost everything particle physicists are searching for within the physical has its cause in the metaphysical. Energy is not in matter, energy is extended to matter from the metaphysical.
Desire to express is energy.

In the course of describing the cubic wave field, and how sodium chloride (NaCl) is the best representation of Stillness within the simulation, the following is a natural conclusion; all matter which expresses itself in motion wants to rid itself of that motion and return to the metaphysical universe of Stillness.
This ultimate goal of all matter is to find rest from motion. However, there are some suitable conditions along the way within the matrix of motion which are acceptable states of motion, that offer a balanced simulated Stillness akin to the metaphysical universe of non-motion.
When ones body is worn out, the physical body dies, but the metaphysical body returns home to build another negative which, when completed, will be projected as a positive expression into the matrix. Death resides in the metaphysical, but death is not what man believes it to be.

Can't you 'see' that you die every second of every day, because as you alter your own thought-body pattern a new physical you is projected.
The only difference between this daily death and your physical death at around 80 years is 'dimensional'.

Now, hand in hand with this idea comes the fact that the NaCl salt forms as a result of a balanced union between oppositely sexed expressions.
The salt is in fact a physical representation of the death experience.
When two lovers unite in the ultimate expression of union, they experience an ecstasy which rather than being an insight of 'ultimate life' is in fact an insight to the ecstasy of death.
Death is a euphoric experience for the soul and true euphoria is to be found in Stillness.
Finding Stillness in death is an experience for all to look forward to.
Your physical body is separated from your metaphysical self. Electricity is the force of Mind which is the cause of this separation.
Your physical body desires to unite with its own metaphysical self.
Electricity, expressing the 'life' principle prevents this re-unification from occurring. When electricity disappears however, that re-unification is inevitable.
All expression of matter and motion express and follow this simple law of nature; all matter will express the life principle once electricity is present.

Electricity is the cause of polarity, and polarity results in motion.
All motion is driven by the desire to stop moving.
The best place to find that stopped condition is with union between the physical/metaphysical self. A temporary rest condition may be found within the simulated universe, through a balanced union of sexed mated opposites.

Your physical body is a condensed thought-form of Mind.
Just as a droplet of invisible vapor condenses on the cold glass surface, your physical body condenses against cold space.
All visible matter is manifested as a result of condensation.
Your physical body is centered by an equator of Stillness.
This is the location of Mind itself.
Mind cannot be separated from its own Creation.
Mind therefore forms the boundary limits and the very center of every single expression within the matrix. Your physical body is centered by Mind.
The rims of the thought-bodies define your own physical wave field boundaries.
Mind encloses your condensed physical form.

The previously shown string theory calculations also imply that the quantum wave composes the surface or 'holographic boundary' of the quantum particle, which shows a clear correlation to the metaphysical concepts that have been explained above.

In order for your soul to express itself, it must do so through your physical body.
Cosmic Mind does exactly the same thing, because there are not two forms of Thinking.
When Cosmic Mind wishes to express his idea of 'Man' he does so through a physical instrument; your physical body.

Mind channels its Soul/Light through every physical expression, including you.
You are one with Mind, you are one with all Created things.

Every aspect of Creation is an instrument through which Mind expresses the entire Creation Idea.

One only needs to develop the 'eyes' to see this truth.
Cosmic Mind uses all physical forms to express the Light/Soul of Mind, just as a musician channels his/her soul through their particular instrument.
The musical instrument acts as a device to set into motion the ideas of the musician; those ideas having no motion in themselves.
The musician is acting exactly as Cosmic Mind does in creating physical forms to express concept and ideas which are qualities of the Mind.
"The instrument by itself can do nothing, but the instrument in the hands of a master can inspire.”

References

The Lucas Sequence
This section is from www.wikipedia.com

Fibonacci Arrays
This section is from www.wikipedia.com
Figure 1 - www.wikipedia.com

The Lucas Sequence = The Dimensions of Spacetime in String Theory
This section was originally written by me and posted on my own website in 2017.
www.goldenspiral.proboards.com

Lucas Sequence 12 digit repeat cycle
The Lucas sequence 12 digit repeat cycle was originally discovered by Lucien Khan.
This section also contains some of my own analysis.
Figure 2 - This image is from Lucien Khan.

Revisit - Fractal Dimensions of Spacetime in String Theory - 12 digit repeat cycle
This section was originally written by me and posted on my own website in 2017.
www.goldenspiral.proboards.com
I also emailed this information to Dan Winter on 4/3/18
Figure 3 - This image is from Salah-Eddin Gherbi

E - Infinity Review - “Resolution of the Black Hole Information Paradox”
Figure 4 - This image is from
https://aminoapps.com/c/science/page/blog/wordoftheday-spaghettification/6WCz_uKERR18LEbegbxEmlXoEXodlX
This entire section was written by Prof. Mohammed El Naschie and was edited for posting on my instagram on 3/12/17.

Fractal 44 Intro
This section is from Salah-Eddin Gherbi’s book “The Etheric Particle 216”
Figure 5 - This is an edit of Salah’s images from his book.

Intro to Metaphysics and Walter Russell's Cosmology
This section is written by my friend Alan, the creator of www.walter-russell.com
All of the images in this section are from the archives of this website as well.

The Cubic Wave Field
This section is written by my friend Alan, the creator of www.walter-russell.com
All of the images in this section are from the archives of this website as well.

Wave Sequences Project 2D into 3D - Flower of Life Origin
This section is written by my friend Alan, the creator of www.walter-russell.com
All of the images in this section are from the archives of this website as well.

Standing Waves and the Flower of Life - 2D XYZ coordinate grid
This section is a combination of Alan's writing and also my own analysis.
Figure 19 - This image is an edit of Alan's images from his website www.walter-russell.com
Figures 20, 21, 23, 24 - These are my own images used to further explain the concept.
Figure 22 - This image is from www.polarizedfractalmaththeory.com

Tetrahedron Grid Octaves
This section is insight from Nassim Haramein and also my own analysis.
Figure 25 - This image is from Nassim Haramein.
Figure 26 - This image is from instagram.

The Hypercube (Fractal 44)
This section is insight from El Naschie and also my own analysis.
Figure 27 - This image is from one of El Naschie's publications.
https://file.scirp.org/pdf/NS_2015121015032768.pdf
Figures 28, 29, 30, 31, 32 - These images are from instagram.

"To Know the Mechanics of the Wave is to Know the Entire Secret of Nature"
This section is written by my friend Alan, the creator of www.walter-russell.com